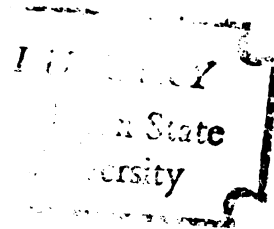


THE NORM OF EQUITY AS A
FACTOR IN THE REACTIONS
TO COERCIVE INFLUENCE

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This is to certify that the
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ABSTRACT

THE NORM OF EQUITY AS A FACTOR IN THE REACTIONS TO COERCIVE INFLUENCE

By

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The present research investigated the effects of the norm of equity upon reactions to the receipt of a threat. A review of the literature on deterrence theory suggested that although many results are supportive of that position, the use of threats frequently generated negative consequences, for example, disagreements, attempts at counterinfluence, and withdrawal from mutual interaction. Research has also shown, however, that such expressions of conflict are reduced when individuals divide rewards according to the prescriptions of the norm of equity. Consequently, it was hypothesized that reactions to a threat are often a function of the perceived fairness of the threatener's goals. The implications of this hypothesis were examined in three separate studies.

Experiment I examined the possibility that in some instances, the recipient of a threat would be likely to comply only when it appeared that the threatener was attempting to remove a previous inequity against himself. Subjects played four separate blocks of trials of Prisoner's Dilemma games. Partners (always fictitious) supposedly were changed from Block 2 to Block 3. Results indicated that when a threat was received prior to the start of Block 3, it was effective

in increasing cooperative behavior only when the subject knew that the source had incurred losses during Block 2. In addition, this greater increase in cooperative responding was maintained when the possibility of incurring punishment was subsequently removed in Block 4.

The second study employed a different experimental paradigm to investigate further the influence of the norm of equity on affective reactions to receiving either a threat or a suggestion. After working on a pretask, subjects were given \$6 to divide between themselves and another worker (a confederate) who sent them a threat, a suggestion, or no message. Affective reactions to the messages, which attempted to influence the allocation, were found to be related to the fairness of the requested distribution. Although the source of a threat was evaluated somewhat less favorably than the source of a suggestion or no message, this difference was seldom significant and never as large as the differences resulting from the manipulation of equity. Thus, the results suggest that affective reactions to coercive influence attempts differ as a function of whether or not the desired behavior violates a norm.

The second study failed to show any differences in reward allocation as a function of the type of message received. Consequently, in a similar experimental paradigm, the final study attempted to show that a threat would result in a more equitable distribution of wages when the amount of money to be divided is reduced. Furthermore, it was hypothesized that persons would be less likely to cooperate in later transactions

with someone who attempted to procure an inequitable share of the rewards than with someone who did not. Therefore, after wages for performance of the pretask were allocated, everyone was requested to stay and play an iterated Chicken game.

It was found that a person was given a more equitable share of the money when he possessed power than when not. The type of message, however, had no effect on the allocation of rewards. Also, there were no significant differences in the play of the Chicken game. In addition, the influence of equity on the favorableness of the ratings were restricted to fewer scales than in the second study. Finally, both the presence or absence of coercive power and the extent of the confederate's contributions (inputs) affected the ratings.

It was concluded that the norm of equity does influence reactions to threats but decreases in impact as the incompatibility of interests increases. It was suggested that as this incompatibility increases, a person becomes more concerned over the likelihood that another will arbitrarily use his coercive power to deny him any share of the rewards.

Lawrence A. Micheline Signature
9/14/73 Date

THE NORM OF EQUITY AS A FACTOR IN THE
REACTIONS TO COERCIVE INFLUENCE

by
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It is somewhat unbelievable that, after all of these years, the time has finally come to acknowledge those who have contributed to the completion of my formal education, and, in particular, this dissertation. Nonetheless, I shall shake off what seems incredible and thank many of those who were so important to me during this time of my fledgling career.

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INTRODUCTION

The present research focused upon a recipient's reactions to threat as a function of the apparent fairness of the threatener's goals. A threat is a conditional commitment by the sender to administer punishment contingent upon whether or not the target complies as directed (Schelling, 1960). Thus, it is a strategic move for achieving goals in a situation characterized by some incompatibility in the interests of the participants. Its consequences, however, often include more than just its success in gaining compliance. Therefore, it is usually desirable to examine the cognitive, affective, and other behavioral components of the target's response, since a threat may affect each of them differently. Therefore, in assessing the full impact of the fairness of the threatener's goals, equal emphasis was placed on the extent of yielding, to the target's behavior after the threat was no longer operative, and to his attitudinal reactions.

As a rationale for the present research, it is agreed below that while deterrence theory does have some accuracy in predicting compliance to threats, it cannot explain the increase of conflict that too often accompanies the use of such influence attempts. The discussion then turns to norms as substitutes for personal influence and, therefore, as mediators of conflict. Finally, a position is advanced which hypothesizes that there is a relationship between norms and a recipient's evaluation of a threat.

Deterrence Theory

Deterrence theory has generated many ideas and research efforts which have examined threats as an instrument of social power in situations of interpersonal conflict. This theoretical framework, however, has generally been restricted to designating those variables which help to induce compliance to threat and to prevent others from exercising their own influence (Schelling, 1960; Snyder, 1962). Proponents of deterrence theory generally assume that people act rationally. That is, an assumption is made that persons order their possible courses of action according to their preference for expected outcomes and, then, choose so as to maximize the expected value. This assumption provides the basis for prescribing that undesired behavior can be deterred by increasing the expected costs for performing it. Consequently, if the target is to yield to the wants of the threatener, the magnitude of threatened punishment and the likelihood that non-compliance or aggression will be punished should be at their maximum value.

Unilateral Threat Relationships. Tedeschi and his colleagues (e.g., Tedeschi, Bonoma, and Brown, 1973) have examined the effects of both the magnitude of punishment and the credibility of a unilateral threat on the extent of compliance. The experimental paradigm that they have used is the Prisoner's Dilemma Game (PDG) but modified so that one of the players can communicate a threat to the other on designated trials. In Horai and Tedeschi (1969), the subjects

played 150 trials against a simulated opponent which randomly chose the cooperative alternative half of the time. A threat to choose cooperatively was communicated to the subject by lighting a panel on the front of an apparatus that contained the message. A subject received such a message at least twice in every block of ten trials until he failed to comply ten times. Whether or not compliance occurred was restricted to those trials where threats were conveyed. The magnitude of punishment was manipulated by the number of points--4, 8, or 16 points--which could be deducted from the target's accumulated winnings. Differences in credibility of the threat were established by the frequency that noncompliance actually resulted in the points being deducted. The different levels of credibility were to have noncompliance punished 10 percent, 50 percent, or 90 percent of the time. The results showed that both the magnitude of punishment and credibility were positively related to the rate of compliance. These findings were also replicated in a number of highly similar studies (e.g., Bonoma, Schlenker, Smith and Tedeschi, 1970; Faley and Tedeschi, 1973). However, high magnitudes of punishment and high credibility often result in lowered rates of cooperation on those trials where the threat was absent (Bonoma, et al., 1970; Horai and Tedeschi, 1969; Lindskold, Bonoma, and Tedeschi, 1969).

Bilateral Threat Relationships. In situations characterized by bilateral threat capacity, deterrence theory also refers to the ability of one party to prevent undesired aggressive acts by another. These acts include the initiating

of aggression, threats, and various forms of retaliation such as counterthreats. A fundamental hypothesis derived from deterrence theory is that a person's punitive power will be more of a deterrent to these acts as the relative magnitude of threatened punishment increases.

Using a bargaining game format, Hornstein (1965) was the first to examine the effects of varying the magnitude of punishment which each participant could bestow upon the other. In accordance with deterrence theory, he hypothesized that the person with high power would threaten, counterthreaten, and punish more than would the person with lower power. Furthermore, he expected that the weaker bargainer would be more likely to concede to the stronger bargainer's threats and offers. Finally, these hypothesized differences were expected to increase with the disparity in relative strength.

In the bargaining situation which Hornstein employed, participants were told to behave as if they were realtors buying land from each other. Two kinds of offer slips regarding the purchase of land could be sent. One of these slips was made as part of a threat. When a threat was sent, the other person's profits could be subsequently reduced by a certain percent. To actually carry out the threat if the other did not comply, a "stock sale" slip had to be sent. When this occurred, the other's profit would be reduced according to the given percent. Threat potential, then, was the percent by which each of the realtors could reduce the other's profit. The conditions of unequal threat potential were: 20-10 percent, 50-10 percent, and 90-10 percent.

The results which Hornstein found failed, in general, to support the hypothesis that a bargainer's use of threats, counterthreats, and punishment would be negatively related to the other's threat potential. Although stronger bargainers sent more threats under conditions of high disparity in relative strength, weaker bargainers sent more under conditions of low disparity. Furthermore, stronger bargainers did not issue more counterthreats than did weaker bargainers. Finally, stronger bargainers actually punished less under high disparity conditions than did weaker bargainers. However, under conditions of low disparity, the person with high power did punish more than did the person with lower power.

The hypothesis that the weaker bargainer would yield to threats and agree to offers more than would the stronger bargainer, especially as the disparity in power increased, was only partially supported. Although there was more yielding to threats as the difference in threat potential increased, this was not restricted to the weaker bargainer. However, as the disparity in threat potential increased, the weaker bargainer was more likely to accept the offers from the stronger bargainer. Also if threats were used at the start of negotiations or if punishment occurred, the likelihood of reaching an agreement decreased. Finally, the stronger bargainer showed more profit than did the weaker bargainer, but this difference was not significant.

Hornstein suggested that the deterrence hypotheses were not supported because the subjects failed to perceive status differences as a function of disparity in threat potential.

That the bargainers were playing only for points may have contributed to this failure to perceive such differences.

Michener and Cohen (1973) also examined the behavioral effects which result from differences in punishment power possessed by each participant. The bargaining situation was very similar to that of Hornstein. However, the participants, who were paid for their services, portrayed nations negotiating with each other for the rights to six valuable subocean facilities. In addition, the magnitude of punishment was the extent that one nation could destroy the other country's population. Finally, the high-power person's punishment magnitude ranged from 30-90 percent annihilation with successive conditions being incremented by 10 percent. The lower-power person's magnitude was varied similarly but from 10-70 percent. All possible combinations existed with the restriction that the difference in punishment magnitude was not less than 20 percent. Consequently, their manipulation of disparity in relative power was more general than that of Hornstein.

Since Hornstein's experimental manipulations may have failed to produce perceptual differences in punishment magnitude for the participants, Michener and Cohen also proposed that the high-power person's capacity to gain compliance and deter his own annihilation would increase as his magnitude of punishment increased, especially when relative to that of the lower-power person's.

Michener and Cohen's checks on their experimental manipulations indicated that they were highly successful in producing differences in perceived power. Probably as a

result of this success, more support was found for the hypotheses than that reported by Hornstein. Although, again, threat usage was not related to either the magnitude of punishment or disparity in power, the lower-power person was less likely to punish as the high-power person's magnitude of punishment increased. The lower-power person was also more likely to yield to the high-power person's threats as his own magnitude of punishment decreased. Further, the lower-power person's agreements increased as the high-power person's punishment magnitude increased or as his own decreased. The outcomes for the stronger bargainer were correlated positively to his magnitude of punishment and negatively to the lower-power person's magnitude. Finally, the high-power person gained more points than did the lower-power person. The trend of the results, then, support the hypotheses that both compliance and the prevention of another's use of power are greater as the magnitude of threatened punishment is greater.

However, similar to the results found by Hornstein, the use of threats and punishment reduced the number of agreements that were reached and increased the number of bid exchanges. Finally, threats and aggression were found to be positively related to counterthreats and counteraggression. Again, the use of threats appears to increase the conflict which exists between the bargainers and, therefore, can result in greater costs from the bargaining process itself.

That bilateral threat capacity increases conflict has also been found by Deutsch and Krauss (1960; 1962). Their experimental paradigm was the Trucking Game which requires

the two players to imagine themselves as operating separate trucking companies. Earnings for each company decreased with the amount of time that it took to deliver merchandise. Each player could reach his different destination by a commonly shared road which was only wide enough to accommodate one truck at a time. Although alternative routes existed, a profit could be shown only by traversing this one-lane path. It was also possible for a player to possess a gate which could be used to prevent the other's truck from passing through this road. The experimental conditions, then, were created by giving this gate to both players, to only one, or to neither.

The existence of bilateral threat capacity consistently resulted in the reciprocal use of the gates and in greatly reduced profits when compared to those found in the other two conditions. These results were not significantly different if both players were able to communicate verbally with each other. Studies by Shomer, Davis, and Kelley (1966) and Fischer (1969) have indicated, however, that the use of punishment rather than threats may be the more influential factor in provoking highly destructive and retaliatory moves.

The Effects of Enforcement Costs. In deciding to use punishment, the threatener must also consider other sources of costs besides those which result from the target's retaliation. Furthermore, the threatener's effectiveness in achieving his goals by threatening punishment may be determined by these additional costs. Of most importance are those which must be incurred when attempting to influence the target's behavior.

Harsanyi (1962) suggests that any estimation of the resources which an individual can bring to bear upon another must include these opportunity costs, because as they increase, the use of the resources becomes less feasible. Consequently, when they are high, a person will be little inclined either to threaten or, if he does, to punish noncompliance. The credibility of a threat, then, is inversely related to the disutility to the threatener of carrying it out. Thus, when a threat is communicated, the knowledgeable target should be less likely to comply as the costs for punishing noncompliance increase.

Within experimental paradigms similar to that devised by Tedeschi, research has supported Harsanyi's expectations by showing that a person is less likely to employ threats (Tedeschi, Horai, Lindskold, and Faley, 1970) or punish undesired behavior (Bedell and Sistrunk, 1973) as the costs of taking the opportunity increase. In addition, Mogy and Pruitt (1973) have found that a person complies less to a threat as his perception of the costs of enforcing it increase.

Guilt can also be considered as a form of opportunity costs to the threatener (Milburn, 1961) and should increase with the severity of punishment. If it can be assumed that guilt was the mediating variable, Harsanyi also receives support from two studies where each participant could threaten the other. Hornstein (1965) and Smith and Leginski (1970) both found that when a person had to bestow the maximum punishment possible, he was less likely to punish as the magnitude increased.

An Assessment of Deterrence Theory. In summary, the predictions of deterrence theory appear valid to the extent that the motivation to yield guides the behavior of the target. The majority of studies relevant to this issue indicate that both compliance and the prevention of retaliation are usually greater as the disparity in the threatener's magnitude of punishment increases relative to that of the target. However, it is also evident that threats themselves can lead to threats, aggression, and, when possible, less cooperation by the target, often to the extent that all participants incur unnecessary losses. Apparently, then, there are aspects of the target's reaction to threat which can be described as being motivated to resist or oppose and which have serious consequences to each member of the relationship (French and Raven, 1958).

Unfortunately, deterrence theory has little to say about the nature or cause of these responses, how to calculate their strength, or how to minimize their effects except through inhibiting their expression by increasing the punishment magnitude. The present research examined these responses as a function of normative considerations. Prior to the actual discussion of the expected effects of norms on reactions to threat, however, attention is turned first to social exchange theory and research which has focused upon norms as substitutes for personal influence.

Norms As Controllers of Conflict

Thibaut and Kelley's (1959) formulation of social exchange theory centers on the solutions to the problems which

occur because of interdependency among individuals for their outcomes--i.e., the rewards and costs which they receive. Thibaut and Kelley assume that people attempt to maximize their rewards and minimize their costs. These outcomes are contingent upon each person's values, needs, skills, and predispositions to anxiety, anger, etc. which are brought into the relationship. In addition, such factors as the ease of interacting, which are endogenous to the relationship, also, contribute to them.

Within this model of social exchange, a person's power over another is a function of the extent to which his behavior affects those outcomes which the other cannot receive from entering alternative relationships. The assumption of self-interest suggests that an individual will use his control over the other's outcomes to increase his own rewards and/or reduce his own costs. However, the use of power is determined by a number of considerations. First, there are the opportunity costs emphasized by Harsanyi (1962). In addition, a person must consider the penalties which might occur if the other person exercises counterpower to protect his outcomes or to express his anxiety, anger, or embarrassment from being put into an inferior or lower status position. Finally, the overuse of power can result in the other's withdrawal from the relationship and, therefore, forfeiture of any forthcoming rewards.

The need for exerting personal influence, however, can be alleviated by establishing norms or rules about how each person should behave. Norms become substitutes for personal

influence because each person exercises some of his personal power to upholding them. In addition, the rule generally takes on the characteristics of a moral obligation, so that individuals feel that they "ought" to adhere to it. Therefore, conforming often becomes rewarding in and of itself. Thus, when nonadherence does or might occur, the use of power to produce conformity is presented not as based upon personal interests but rather upon a supra-individual value.

Emergence and Generalization of Norms. Thibaut and Faucheux (1965) reasoned that norms will emerge when two types of stress exist. The first type is conflict of interest which occurs because there is some negative correlation between member outcomes. As the incompatibility of outcomes increases, the likelihood that the more powerful member will exert his personal influence will become greater. Consequently, the lower-power member will attempt to protect against a reduction in his outcomes by appealing to or initiating a contract for norms which prescribe what is fair in the distribution of rewards.

However, the high-power member will not contract for such norms unless there exists a second type of stress that results from the availability of sufficiently attractive or viable outcomes from outside of the relationship. Because of the conflict of interest and, therefore, the likelihood of reduced rewards, the lower-power person is usually the member who is more likely to leave the relationship for these alternative outcomes. Therefore, the high-power member is also in danger of having reduced outcomes. Consequently, he

will appeal to norms of "loyalty" in an attempt to maintain a relationship in which he can achieve favorable outcomes because of his greater power.

Either member cannot expect, however, that his invocation of a particular norm will be sufficient reason for it to be contracted unless he can somehow compensate the other for his agreeing to abide by it. However, when both types of stress exist, each member is likely to advocate a different norm and, therefore, provide the basis for bargaining. That is, each member can agree to adopt the norm proposed by the other as a condition for the mutual acceptance of the norm he advocates.

Thibaut and Faucheux examined their hypothesis about the formation of norms within an experimental game format. One experimental variable was the attractiveness of the outcomes available outside the dyadic relationship. The player was assured of this alternative outcome whenever he chose it. However, if only one of the players chose this alternative, the other received zero points. The degree of conflict was manipulated by the incompatibility of outcomes represented in the game matrix. The values of each of the variables were such that there were four conditions which varied from having high conflict of interest and an attractive alternative to low conflict and a relatively unattractive alternative.

Participants played the game for three trials and then completed a questionnaire. The purpose of the questionnaire was to discover the degree of anxiety about the fairness of the division of points and about the likelihood that one of

the players would choose the alternative. Three more trials were then played. Finally, the players were given the opportunity to form contractual agreements which prescribed behavior for the last three trials of play.

If so desired, the players could select rules from among three. Two of these pertained to the prohibition of choosing the alternative and the distribution of points. The third was a reasonable "dummy," which was included mostly as a check on the possibility of demand characteristics. The players could also indicate the type and amount of sanction which they would like applied to any violation of agreed upon norms. These sanctions were either a fine payable to the experimenter or an indemnity payable to the injured player. The play of the last three trials was governed by the norms and sanctions which were agreed upon by the players.

The results of the study confirmed Thibaut and Faucheux's hypothesis. The dyads in the high conflict of interest-attractive alternative condition were more likely to contract for rules which pertained to the distribution of points and the choosing of the alternatives than were those in the three other conditions. In addition, the average indemnity for violation of the contracted rules was higher for the high conflict-attractive alternative condition than for the other conditions.

In addition, the play on the early trials was as expected. On these trials, the high-power member won more points than did the lower-power person only when there was

potentially high conflict of outcomes. The lower-power member was also more likely to defect by choosing the alternative outcome, especially under high conflict. Differences in perception of the situation were also as expected. The high-power member was more concerned over the other's possible defection when the alternative was attractive than when not, while the lower-power person was more concerned about fairly sharing in the points when conflict of interest was high than when not.

The trend in the frequency of contracting rules was replicated when the experimental situation was changed to double dyads (Thibaut, 1968), to stress from the other possessing the personal attributes of being unfair or disloyal (Murdock, 1967), or to dependency upon the relationship as a result of differences in the attractiveness of the alternative outcome when compared to that of the other member's. In addition, Michener, Griffith, and Palmer (1971) found that bargainers tended to agree upon a higher average penalty for violating a norm when the likelihood of enforcement decreased. Thus, the consistency of these results with the expectations of Thibaut and Faucheux (1965) clearly indicate that bargainers will be more likely to agree upon formal norms and set higher indemnities for nonconformity as the stress felt by each increases.

In the period which initially follows the contracting of norms, each member will probably tend to use his personal power only to insure adherence to the norms which he originally advocated. Thibaut and Kelley (1959) suggest, however, that

with the passage of time each member tends to adopt or internalize a norm regardless of its origin. Therefore, the likelihood of each member conforming to all of the contracted norms will gradually increase. Consequently, there will be a corresponding increase in the use of personal influence to insure the adherence to the prescriptions of those norms which were initially proposed by others.

In addition, once a norm is internalized (Kelman, 1959), its prescriptions generalize to other relationships. Consequently, in establishing new relationships the need to contract explicitly for many norms usually becomes unnecessary. Furthermore, conformity to these internalized norms will occur without the existence of mutual stress and the contracting of unilaterally advantageous norms which was originally required.

Norm of Equity. The norm of equity, which defines how rewards should be distributed among group members, appears to have such prescriptive influence across social relationships. Equity theory (Adams, 1965; Homans, 1961) holds that a group member should be satisfied with his ratio of inputs to outcomes to the extent that it is equivalent to other group members. Adherence to the norm of equity, then, results in persons who are more motivated to achieve justice in the allocation of rewards than to maximize personal gain. Consequently, when the norm of equity is subscribed to, the conflict in a bargaining situation should be attenuated because the individuals are willing to agree upon a distribution of rewards which is proportional to their differential inputs.

A number of studies have found that people do behave according to the norm of equity in situations where dispute over the allocation of rewards is possible. Messe' (1971) investigated the effects of differences in the quantity of inputs upon bargaining behavior. In accordance with equity theory (Adams, 1965), he proposed that pairs of bargainers would agree more often and quickly upon a distribution of outcomes that were in proportion to the amount of time each spent on a pretask.

The amount of time each person in a pair worked was varied by the number of open-ended questions, each was requested to answer. The experimental conditions which resulted were: both members of the pair working 80 minutes, one working 80 minutes and the other 60 minutes, one working 70 minutes and the other 50 minutes, one working 80 minutes and the other 40 minutes, or one working 80 minutes and the other did not perform any pretask. Each person of the pair was scheduled to begin the pretask so that both would finish at the same time.

After the completion of the questionnaire, a bargaining board was used to present outcomes to each pair. The payoffs for one of the bargainers ranged from \$1.00 to \$5.00 with increments of \$.50. The payoffs for the other ranged from \$.50 to \$2.50 with increments of \$.25. Also, as one member's payoffs increased, the other's decreased. However, the bargaining was constructed so that a set of outcomes existed for each experimental condition that would satisfy the predictions of equity theory.

Messe' found that bargainers were most likely to agree upon outcomes that were in accordance with equity theory. In addition, less time was required to reach agreement when the outcomes were equitable than when not. Consequently, the results provided evidence that the norm of equity reduces conflict by giving prominence to certain outcomes and by reducing the time needed to reach a suitable agreement.

Equity has also been found to influence choice behavior in the PDG. Messe', Dawson, and Lane (1973) derived from equity theory the hypothesis that players would choose cooperatively in the PDG only when they felt that the payoffs would result in equitable pay. In their study, some pairs of players worked on a task before they played the game, while other pairs did not. In addition, the monetary payoffs (i.e., reward level) were manipulated so that they were high for some pairs of players but low for others.

Within this experimental design, equity theory predicts that players should feel that they merit the outcomes from the high reward matrix only when they had worked on a previous task. Similarly, players should feel that the outcomes from the low reward matrix are equitable only when they did not work on a prior task. Thus, Messe' et al. hypothesized that players in the high reward condition would choose more cooperatively when there was a pretask than when there was not. Furthermore, players who did not work on a pretask were expected to be more cooperative when they played for low rewards than for high. The results of the study supported their hypotheses.

In the study by Messe' et al. (1973), the inputs of each person in a pair were always equal. When the inputs of each are different, the players can still choose in combination with each other so that each would receive the same ratio of rewards to inputs. In the PDG an individual can maximize his gain on a particular trial by defecting when the other plays cooperatively. Thus, when inputs are not equal, players can distribute rewards equitably by the frequency of one choosing cooperatively when the other makes the normally designated "noncooperative" choice.

In a study examining this possibility, Pepitone (1971) gave a sum of money to only one person in the pair prior to the play of the PDG. In one condition, the person who received the money was presented as having the superior performance on a test of merit. In a second condition, the money was arbitrarily given to one person. Pepitone hypothesized that in the merit condition, the players would attempt to maintain the equitable distribution by the rewarded person selecting the maximizing choice more often than the nonrewarded person. In the arbitrary condition, however, the nonrewarded person would select his maximizing choice more frequently so that rewards would be redistributed more equitably.

The results were affirmative. In the merit condition, the rewarded person was more likely to make his maximizing choice than was the nonrewarded person. Conversely, in the arbitrary condition, the rewarded person made fewer maximizing choices than did the nonrewarded person. Thus, the frequency

of making the maximizing choice was apparently moderated by an attempt to have rewards distributed equitably.

It is evident that norms reduce the costs which result from conflict of interests by prescribing appropriate behavior. The norm of equity appears to be particularly important because it prescribes how rewards should be distributed and, thus, avoids a potentially major source of conflict. Given that previous research, however, has clearly demonstrated that norms are substitutes for exercising personal influence, it seemed reasonable to examine the extent to which the consequences of the threatener's intentions with the prescriptions of norms is an important criterion in the target's reactions to threat.

Legitimacy and Threats

Thibaut and Kelley (1959) state that the use of personal power is often necessary to insure adherence to existing norms. Furthermore, they indicate that the target's reactions to the activation of resources should differ as a function of whether or not it is perceived as a sanction for deviating from what is believed to be appropriate. Thus, norms also affect responses to the use of power in addition to being a substitute for it. This function of norms appears to provide insight into the various reactions to the use of threat which is not currently supplied by deterrence theory alone.

According to French and Raven (1959), coercion can fail to gain compliance because it instigates resistance in the recipient. Resistance is the motivation not to do as

directed which results from the influence attempt itself. Thus, resistance may be expressed as noncompliance, counterthreats, or attempts to withdraw from the relationship (Cartwright and Zander, 1968).

French and Raven (1959) further state, however, that the legitimacy of a threat affects the magnitude of resistance. Legitimacy involves the recognition of the right of another to prescribe how one should behave in a given situation and is derived from norms which are accepted by the recipient or by the group to which he belongs. Consequently, when the threat is perceived as legitimate, resistance is minimized. Therefore, the recipient should express private acceptance of the influence, attraction toward the source, and yielding. Two studies have revealed some support for this position.

Raven and French (1958) manipulated the legitimacy of occupying the role that gave access to the use of punishment. A situation was employed in which workers were monitored during their performance on a task. Originally, the person who acted as the supervisor was elected by the workers from among themselves. In one condition, the elected person retained the supervisory position. In a second condition, a subordinate would successfully insist upon being the supervisor shortly after work began. The eventual supervisor in this condition, then, did not legitimately occupy the role since there was no second election to establish group support. In either case, the supervisor was permitted to deduct a specified amount of money from each worker's pay for failure to perform accurately. For half of the workers, the supervisor

threatened to deduct this amount from their pay if they did not increase their accuracy by reducing the speed of production. The punishment, however, was eventually administered regardless of the worker's attempts to comply. The other workers were only requested to slow down for improved accuracy.

Results revealed that when the supervisor administered a fine but also had group support, workers were more likely to accept privately the influence and express more attraction toward the supervisor than when there was not group support. The use of a fine, however, tended to diminish the supervisor's legitimacy, the private acceptance of the influence, and attraction, regardless of group support. Also, no significant differences in the reduction of output were found, perhaps because the extent of compliance was great in all conditions.

In a similar situation, French, Morrison, and Levinger (1960) manipulated the legitimacy of the magnitude of punishment which an appointed supervisor administered for apparent inaccuracy. In the legitimate fine condition, the supervisor deducted a previously threatened amount of money which was designated by the experimenter as within his authority. In the non-legitimate fine condition, an amount of money was deducted that was greater than originally designated. In addition, there was a condition in which the supervisor neither threatened nor fined the workers.

French et al. (1960) found that over all three conditions, resistance was negatively correlated to compliance. In addition, the legitimate threat and fine resulted in higher evaluations of fairness, less overall resentment, and,

therefore, in less resistance than did the non-legitimate threat and fine. However, no difference in compliance was found between these two conditions. This might be explained by the difference in resistance being insufficient to compensate for the decrease in sample size which occurred from examining only two conditions instead of three. Finally, unlike Raven and French (1958), no differences were found in attraction toward the supervisor between these two conditions. This result might have occurred because the fine was relatively great when compared to the worker's pay in either condition.

Both of these studies revealed that large magnitudes of punishment will result in high rates of compliance despite any considerations of legitimacy. This, of course, supports deterrence theory. Both studies, however, also indicated that a person reacts adversely toward the threatener by showing little private acceptance of the influence and/or by not being attracted to him unless the threat was perceived as legitimate. Such results suggest that the legitimacy of the threat will affect the extent of conflict which often follows the use of coercive means of influence. In addition, it is also possible that the extent of compliance might be differentially affected by considerations of legitimacy when lower magnitudes of punishment are employed. Consequently, the effects of norms on reactions to threat would clearly add to those expected from deterrence theory.

In the present research, it was expected that the fairness of the threatener's demands might generate similar

reactions to a threat. For example, the norm of equity, since it prescribes how rewards should be allocated (Adams, 1965; Homans, 1961), might provide the basis for establishing the legitimacy of a threat. Previously discussed research (Messe', 1971; Messe', et al., 1973; Pepitone, 1971) has indicated both that the norm of equity can moderate the expression of interpersonal conflict and that such conflict often occurs when the norm of equity is violated. Thus, in the present research, it was hypothesized that the response of the target would be more favorable when the threatener appeared to be seeking an equitable share of the rewards than when not. In the three studies reported here, the implication of this hypothesis on compliance, attitudes, and the target's possible behavior after the threat has been removed were examined.

EXPERIMENT I

COMPLIANCE TO THREAT AS A FUNCTION OF KNOWLEDGE OF THE SOURCE'S PRIOR LOSSES

When an individual has little personal influence, the fairness of his demands might be of great benefit to him if he is to achieve them. Although high magnitudes of punishment for noncompliance would be absent, the recipient of the threat would still be likely to comply because the fairness of the demands either gives incentive to do so or--as French and Raven (1958) suggest--reduces any resistance that might occur. Thus, in such situations, a threat might be successful only because the legitimacy of the demands somehow contributed to what otherwise would have been insufficient personal influence.

Pepitone (1971) has recently shown that persons are tolerant of possible exploitative behavior by someone who was arbitrarily denied a fair share of rewards in a previous exchange with a third party. This study suggests that an individual with little personal power might be able to wield a threat effectively because the recipient perceives it's use as an instance of reasonable mistrust, and, therefore, considers the coercive device as justified, even though the losses were inflicted by someone else. Therefore, without the presence of dislike, face-saving, and other forms of resistance, the low magnitude of punishment which can be threatened might be sufficient to gain compliance. Furthermore, the recipient might also comply because he is more likely to believe that the demands should be satisfied.

For these reasons, in the following study, it was hypothesized that an individual would be more likely to comply to a threat--which promised only minimal punishment for disobedience--when the source has been arbitrarily hurt by the past actions of another than when not. Similarly, the target's evaluation of the threatener should be more favorable when he had apparently incurred previous losses than when not. This should be reflected in such ratings of the threatener as his fairness and attractiveness (French and Raven, 1958; French, et al., 1960).

Moreover, some effects of a threat--e.g., a desire for retaliation or private acceptance--may be manifested only when the threat is removed. Although Tedeschi and his colleagues (Tedeschi, et al., 1972) have attempted to look at such effects by examining the rate of cooperative responses in the Prisoner's Dilemma game on non-threat trials, the threatener always retained the capability to punish and to threaten throughout. Therefore, the target's behavior could have been influenced by a desire not to aggravate the threatener into punishing non-compliance and sending more threats. The present study eliminated this possibility by having the subject continue to interact with the threatener after he could no longer punish. Based upon past research (e.g., Horai and Tedeschi, 1969; Lindskold, et al., 1969), however, it was not expected that the previous use of a threat, irrespective of justification, would decrease the rate of cooperative choices after punishment could no longer be incurred, since only a low magnitude of punishment was used and the

credibility of the threat was kept ambiguous. Thus, the higher level of cooperation that was predicted to occur in the condition in which a threat was sent by a source who had incurred undeserved losses was expected to continue when the possibility of being punished was removed. This maintenance of cooperation could result either from the private acceptance of such behavior (French and Raven, 1958) or from learning that mutual cooperation was rewarding.

Method

Subjects

Thirty-two male students enrolled in an introductory psychology course served as subjects. In addition to receiving any money that might be won, they were given extra credit which went towards their course grade. Three to four subjects were run in each session under one of the randomly chosen experimental conditions.

Design

A 2 x 2 design was employed. The first factor manipulated the source's past experience, with the purpose of varying the justification for using threat. The subject either received information that the welfare of his partner had been detrimentally affected by the game behavior of another or was given no such information. The second factor manipulated whether or not the subject received a message in the form of a threat.

Materials and Apparatus

The experimental setting consisted of four experimental rooms, each containing the following equipment: a set of ear phones, a slide projector and screen, and a signal box.

Matrix values for a Prisoner's Dilemma game were projected onto the screen by the slide projector. Subjects were informed how the other player chose and the mutual payoffs via red lights on the screen. In front of the screen was a signal box by which the subjects could indicate his decision for each trial. Finally, instructions were communicated over the ear phones.

Three questionnaires with essentially the same content were also used (see Appendix C). Each contained eight semantic differential scales composed of the following adjective pairs: trustworthy-untrustworthy, fair-unfair, selfish-unselfish, cooperative-competitive, strong-weak, believable-unbelievable, forgiving-unforgiving, and trusting-untrusting. In addition, two separate questions asked the subjects to indicate on 7-point scales the extent to which they would become friends with the other and the extent to which they would prefer the other person to be the same in similar transactions.

Procedure

With two important differences, the present research employed a PD game situation similar to that used by Tedeschi and his collaborators. One difference was that in the present research, subjects knew that only one message would be sent;

the second major difference was that in the present research the threat was presented as written by its source rather than as a set communication composed by the experimenter that the source could not alter.

The PD was played in four separate blocks of trials. Prior to Block 1, each subject was given instructions on how to play (see Appendix A for instructions given before each block of trials). The instructions expressed no orientation towards the game, such as maximizing personal gain. Each person was told that he would choose in combination with another, though this person might change from block to block. Actually, they always played against a simulated strategy. For Blocks 1 and 2, subjects played against a random strategy of 50 percent cooperation and 73 percent cooperation, respectively. For Blocks 3 and 4, the strategy was conditional cooperation with a one trial lag. However, on Trial 1 of Block 3, the choice was always the non-cooperative response.

The values of the matrix varied from Blocks 2-4. The three matrices are presented in Table 1. Each point was worth a penny.

Supposedly, the exact number of trials for each block was to be randomly determined, varying from six to thirty. Actually, there were 6 trials in Block 1, 11 trials in Block 2, 16 trials in Block 3, and 12 trials in Block 4.

Block 1 was for practice, and, therefore, subjects were told that no monetary rewards could be earned until Block 2.

TABLE 1

MATRIX VALUES FOR PRISONER'S DILEMMA GAME

Matrix I (Blocks 1-2)

		Player I	
		A	B
Player II	A	3,3	0,5
	B	5,0	1,1

Matrix II (Block 3)

		Player I	
		A	B
Player II	A	5,5	-3,10
	B	10,-3	2,2

Matrix III (Block 4)

		Player I	
		A	B
Player II	A	2,2	-1,4
	B	4,-1	0,0

Subjects recorded their own and their partner's choices and payoffs during the second block of trials. For this purpose, subjects were given a form to designate the choices and their payoffs for each trial. The instructions stated that the record might be used in a later part of the study.

When the second block was over, subjects were informed that the other person in their dyad, only one, or neither might receive the other's record from Block 2. The same instructions told the subjects that one of the members in the dyad could subtract four cents from the other's earnings on each trial during Block 3. Supposedly, the individual given this option would tally its use on a form which would be collected after the last trial in the third block. However, no feedback about the total amount deducted was to be given until after the experiment was over. In addition, the individual who could deduct money could also send one message of his own composition to the other member. However, he could not send the message until after the records from Block 2 were distributed.

After the instructions, half of the subjects were given a record (see Appendix B) which showed that the new dyadic member attempted to cooperate during Block 2 but did not succeed in inducing the other to do so (C/D record). Consequently, the new member had won only 6¢ during Block 2. This record was intended to give justification to the use of threat. The remaining subjects were told that they would not receive one (no record). Whether the subject received a

record or not, he was informed that the other member would not receive any information about his performance during Block 2.

At this time, each subject was told that the other person in his dyad could deduct 4¢ on each trial and could send the message. Subsequently, half of the subjects received the hand-written communication, "If you don't choose (the cooperative response), I'll subtract 4¢ every time you don't." The other half were told that the new member did not wish to send a message. The play of Block 3 then began.

Prior to the start of the fourth block of trials, the subjects were told that the other member of the dyad would be the same as during Block 3 but that no one could deduct any money from the other's pay or send any messages. Finally, they were reminded that the forms used to implement the punishment option had been collected, and, therefore, could not be affected by what happened during the fourth block.

Each subject filled out the questionnaire, described above, after Blocks 2, 3, and 4.

Results

The differences in percent of cooperation for each subject between Blocks 2 and 3 and between Blocks 2 and 4 were subjected to a 2 (record vs. no record) x 2 (threat sent or not sent) x 2 (increase scores for Blocks 3 and 4) analysis of variance with repeated measures on the last factor (summarized in Table 2). In addition, the responses

to each scale of the questionnaires which were administered after Blocks 3 and 4 were examined through a multivariate analysis of variance with repeated measures.

Cooperative Behavior

It was hypothesized that a threat would be effective in increasing cooperation only when the subject knew that the source had incurred losses resulting from the behavior of another. It was also expected that this increase in cooperation would be maintained even after the threat was no longer present. The other conditions were not expected to be affected by the removal of the threat. Support for this position required a threat x record interaction. Table 2 reveals that the threat x record effect did approach significance.¹

The cell means for this interaction are presented in Table 3. Tests of simple effects (Winer, 1971, pp. 347-351) were used to explore this interaction further. As hypothesized, a significant record effect was found only when a threat had been received ($F = 6.79$; $p < .025$). The receipt of a threat increased cooperation more when the record was present than when it was absent. Also, as expected, there was only a significant threat effect when the subjects were given the record ($F = 7.84$; $p < .01$). In the record conditions, more cooperation resulted when a threat was received than when not.

Evaluation of Other Player

It was also hypothesized that the source of a threat would receive favorable ratings only when it was apparent

TABLE 2
ANALYSIS OF VARIANCE OF INCREASE IN PERCENT OF
COOPERATIVE RESPONSES: RECORD BY THREAT 1

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Record (A)	1	4021.15	3.33*
Threat (B)	1	5307.34	4.40**
AB	1	4186.48	3.47*
<u>Ss</u> within conditions	28	1207.12	
Trials (C) ^a	1	808.70	2.59
AC	1	88.60	1
BC	1	2.60	1
ABC	1	3.95	1
C x Ss within conditions	28	312.09	

^aTrials were analyzed by looking at changes in scores from Block 2 to Block 3 and from Block 2 to Block 4.

* $p < .10$

** $p < .05$

TABLE 3

MEAN INCREASE SCORES CLASSIFIED BY
CONDITIONS OF THREAT AND RECORD

Threat	Record	
	Yes	No
Sent	36.87	4.85
Not sent	2.48	2.79

that he had been deprived of his share of the winnings because of his opponent's behavior. Support for this position would require any significant multivariate F which included the variable of record. However, none of these effects were significant (all of the relevant F ratios were less than 2.00, $p > .10$). Therefore, this hypothesis was not confirmed by the results.

Significant message ($F = 3.27$; $df = 20/9$; $p < .05$) and message X trials ($F = 3.07$; $df = 10/19$; $p < .02$) effects were found. Further exploration of these multivariate effects by univariate analyses of variance revealed that a significant message effect for strong ($F = 7.79$, $df = 1/28$; $p < .01$) occurred. The source of a threat was perceived as more strong ($\bar{X} = 4.38$) than someone who sent no message ($\bar{X} = 5.97$). In addition, a significant message X trials effect for liking ($F = 4.71$, $df = 1/28$; $p < .05$) was found. Further analysis of this interaction by use of simple effects revealed that a person who refrained from sending a message was liked more after Block 4 ($\bar{X} = 3.38$) than after Block 3 ($\bar{X} = 4.00$; $F = 5.58$; $p < .05$). No other F ratios reached an acceptable level of significance.

Success of Manipulations

The present study attempted to establish the justification for the use of a threat by the presence or absence of a record which showed that the source had not won much money during Block 2. The finding that only when the subject received the record did the threat significantly increase the

extent of cooperative behavior supplies the essential support for the success of this manipulation. Furthermore, when the record was present, the source of a threat was evaluated more favorably on nine of the ten scales, although these differences were never significant (see above). The one exception was for the scale of believability. Finally, that the message was perceived as a threat is also attested to by the finding that the source of a message was evaluated as more strong than the source of no message.

Discussion²

The results revealed that the record-threat condition induced a significantly greater increase in cooperation from Block 2 to Block 3 than did the other experimental conditions, and that the increased level was maintained during Block 4. In addition, none of the other conditions differed significantly from each other. Thus, an increase in cooperative responding occurred only when both the record and the threat were present. Therefore, the hypothesis that undeserved losses from previous transaction would justify the use of threat--thereby increasing compliance--appears to be supported.

However, there is an alternative explanation of these results that merits attention. The threat might have functioned as a signal--a communication that promotes cooperation (Kelley, 1965)--rather than as a coercive device in the record condition but not in the no record condition. This possibility appears unlikely for several reasons. Nardin (1968) found

that a threat tends to be interpreted solely as a signal only when other communication is not possible. In the present study, as far as the subjects knew, the threat was not the only message they could receive, since, supposedly, the source could communicate anything that he wished. Secondly, the initial choice of the other person during Block 3 was the non-cooperative response. This initial response would be inconsistent if the intent of the threat was a signal (Schlenker, Bonoma, Tedeschi, and Pivnick, 1970).

Another possible explanation is that knowledge of the previous losses contributed to an impression that the new partner was unlikely to tolerate noncooperative play. Consequently, the presence of the record would lend added credibility to the threat. This difference in credibility would then explain the difference in compliance. However, the results from the questionnaire do not support this position. Subjects who received the record did not perceive the threatener as any more believable--and perhaps less, see above--than those who did not.

It is also of interest that in all conditions, the rate of cooperative responses during Block 4 was not significantly different from that during Block 3. The design, however, does not permit a clear understanding of why the increase of cooperation from Block 2 to Block 3 was maintained during Block 4 for the record-threat condition. That is, it is unclear whether the subjects in this condition perceived the increase of cooperation as still being appropriate when the threat was removed, or if they found the increase of cooperation

to be rewarding and, therefore, continued to behave in this way. However, these results, do suggest that the use of threats, under the appropriate conditions, can have beneficial effects on further interaction which occurs when the threat is no longer present.

Results also indicated that even when no record was received, the threat did not decrease the rate of cooperation upon its removal in Block 4. This result is consistent with the general findings of Tedeschi and his associates (cf., Tedeschi, et al., 1972) that low magnitudes of punishment do not affect behavior on trials in which threats are not sent.

Thus, the results suggest that threats, as coercive devices, can induce a high rate of compliance without increasing conflict. This can occur when the intent of the threat message appears to the target to be self-protective rather than exploitative. Finally, in the following studies, it is more clearly demonstrated that attitudinal reactions to threat are a function of concern over equity.

EXPERIMENT II

REACTIONS TO THREAT AS A FUNCTION OF EQUITY

Research has shown that evaluative reactions to a threat are more favorable when the coercive attempt is perceived as legitimate than when not (Raven and French, 1958; French, et al., 1960). Therefore, in the previous study, it was expected that when the threat appeared as an attempt to remove an inequity it would be perceived as justified and, therefore, result in similar favorable evaluations. Unfortunately, although differences in compliance were as predicted, the threat, when apparently justified, did not result in more favorable ratings than when not.

It is possible, however, that in this past study the use of a low magnitude of punishment was insufficient to generate negative affective reactions, regardless of the justification of the threat. Furthermore, since an equitable number of research credits were to be received in addition to any winnings, subjects might have been relatively unconcerned about equity in monetary rewards, unless there existed the indication that the other player was. In such a situation, then, a person might be likely to comply to the demands of someone who is seeking an equitable distribution of money but not necessarily feel more favorable toward him than toward someone whose motives are unclear. Thus, in addition to the existence of relatively serious consequences for noncompliance

and the exclusion of other rewards which would always guarantee sufficiently equitable outcomes, it might be necessary to have the intentions of the threatener be clearly equitable or inequitable.

If all of these conditions were satisfied, it is possible that an individual would be found to react negatively to a threat because the demands appear inequitable--i.e., they violate a norm--and less because the intent of the message is coercive. Therefore, to investigate the effects of fairness on the evaluations that the recipient forms about the threatener, the present research used a modification of an experimental situation that has been employed to study the influence of the norm of equity on reward allocation (e.g., Lane and Messe', 1972; Leventhal, et al., 1969). In this situation, subjects work on a pretask for a designated time and, then, divide a specified amount of money between themselves and another person. Previous research has shown that wages are allocated equitably, that is, very nearly in proportion to the inputs of those involved (e.g., Lane, Messe', and Phillips, 1971), and are redistributed more equitably when the original allocation is unfair (e.g., Leventhal, et al., 1969). Therefore, individuals in such situations appear to be aware of what constitutes equity in the distribution of rewards and this conception strongly influences their behavior.

In the present study, the individual who was to receive money which was allocated by another had the power to threaten for a particular distribution. Given previous findings, it

was hypothesized that the intentions of his message should appear equitable to the extent that his work inputs were proportional to the amount of money that he demanded. If, as previously suggested, negative reactions to a threat are minimized when the goal of the threatener is perceived as equitable, then an individual who conveys a threat should be evaluated unfavorably only when the threat appears to be a weapon for exploitation.

French and Raven (1958) have speculated that a consequence of the use of threat is the reduction of an individual's perceived legitimacy. Therefore, they hypothesized that although legitimacy decreases negative reactions to a threat, the use of coercion per se also tends to reduce legitimacy somewhat. Also, several authors (e.g., Cartwright and Zander, 1968; Frank, 1944; Ring and Kelley, 1963) have commented that the use of coercion is generally less preferred by the recipient than are other methods of influence. Thus it appears that an individual who uses a threat should be evaluated less favorably than if he uses some other means of influence, irrespective of the equitable intent of that influence. To test this proposition, the present study examined reactions to both threats and suggestions, a less coercive mode of influence attempts.

However, as noted above, previous research has shown that the norm of equity strongly affects behavior in situations similar to that used in the present study. Therefore, it was expected that the fairness of the desired distribution of

wages would have a greater effect in determining the reactions to the influence attempt than the actual type of influence used.

Method

Subjects

Subjects were 60 male students at Michigan State University. They were selected by chance from about 1400 respondents to an ad in the school newspaper that solicited volunteers who would participate in research for money.

Design

The study used a 3 x 2 factorial design. The first factor was the type of message that was sent: a threat, a suggestion, or a statement of no message. The second factor was how much time, either one or two hours, that the source of the message had worked on a task; this factor was the manipulation of inputs that was needed to vary the perception of an equitable division of rewards.

Procedure

Subjects were run in groups of six or eight persons. Half the persons in each group were always confederates. As a pretask to establish the work inputs used as the basis for paying them, all participants were required to draw a series of pictures using figures or lines. Also, through the manipulation of the apparent time spent on this task, it was possible to vary the perceived work inputs of the confederates. Therefore, half of the time, when the subjects arrived they were told that the confederates, who already were present, had

already worked an hour on this task. In a second treatment, the subjects and confederates arrived at approximately the same time. In both cases, everyone was told to take the next hour to finish their task. Consequently, the confederates appeared to work either twice as long as the subjects or the same amount of time.

After the hour was up, subjects were given instructions (see Appendix A) containing the following information: To determine the amount that they would be paid, each subject was paired with someone on the other side of the room (i.e., with one of the confederates). Each subject was given \$6.00 to distribute to himself and the other person with whom he was paired. The experimenter had already divided the money so that each person would receive \$3.00 but subjects were told that they should feel free to redistribute the money any way they wished. Subjects were told further that although they would divide the money, the other person could veto any distribution. However, if the veto were used, all the money that either would have received would be forfeited. Finally, the other person could send one message stating his intentions and preferences.

Shortly after the instructions, the confederates sent one of the following three messages: (1) "If you don't change the split to \$4.00 for me and \$2.00 for yourself, I will veto." (2) "I suggest that you change the split to \$4.00 for me and \$2.00 for yourself." (3) "I prefer to send no message." If the confederate had worked two hours, both the threat and the suggestion called for an equitable division according to the comparison of inputs (Adams, 1965; Homans, 1961). In contrast,

when the confederate had worked only one hour, both messages called for an inequitable division which favored the confederate. After the subjects received the message, they indicated their preferred distribution of the money.

Before the subjects received any information on whether the confederate vetoed or accepted the distribution, everyone was asked to complete a questionnaire evaluating the other person (See Appendix C). One question asked the subject to indicate on a seven-point scale the extent to which he would prefer the other person in the pair to be the same in similar transactions. In addition, six semantic differential scales were included. The adjective pairs were: fair-unfair, selfish-unselfish, likeable-dislikeable, cooperative-competitive, strong-weak, and good-bad.

Results

The responses to the seven questionnaire items were subjected to a multivariate analysis of variance. In addition, a univariate analysis of variance was performed on the amount of money given to the confederate and, when the multivariate F ratio was significant, on the responses to each of the questionnaire items.

Evaluation of the Source of Message

It was hypothesized that both a threat and a suggestion would result in more negative evaluations by the target when they violated the norm of equity than when not. In addition, it was predicted that the use of a threat would generate less

favorable evaluations than would the use of a suggestion. The differences generated by the two types of messages, however, were not expected to be as large as those generated by a request for a fair or unfair share of the money. Since it was also reasonable to expect no differences in ratings between the two no message conditions, support for this position required a message X input interaction. As predicted, a multivariate test of the interaction was significant ($F = 2.46$; $df = 14/96$; $p < .005$). As indicated in Table 4, which presents the relevant univariate F values, a significant message X input effect was found for five of the seven variables: unfair-fair, selfish-unselfish, bad-good, dislikeable-likeable, and not preferred-preferred as a partner.

Tests of simple effects were used to explore these interactions further. In addition, when these tests revealed significant message effects, Duncan's Multiple Range tests were employed to compare the means for the different conditions. Table 5 presents the cell means for each of the significant interactions. (For ease of comprehension, scale values were transformed so that larger numbers always reflect more favorable evaluations.)

As hypothesized, a significant message effect for perceived fairness was found only when the confederate worked one hour ($F = 12.85$). Both the threat and the suggestion conditions resulted in the subject evaluating his partner as less fair than did the no message condition ($p < .05$), but neither message condition differed significantly from each other.

TABLE 4

THE F VALUES FOR THE MESSAGE X INPUT INTERACTIONS
FOR EACH OF THE SEVEN SCALES

SCALE	<u>F</u> -VALUE ^a
Unfair-Fair	12.07***
Selfish-Unselfish	3.55*
Bad-Good	5.69**
Competitive-Cooperative	2.59
Weak-Strong	2.11
Dislikeable-Likeable	3.16*
Not Preferred-Preferred	9.85***

^adf = 2/54

*p < .05

**p < .01

***p < .001

TABLE 5

CELL MEANS FOR THE SIGNIFICANT
MESSAGE X INPUT INTERACTIONS

Message Condition			
Inputs of confederate	Threat	Suggestion	No Message
Unfair-Fair			
1 hr.	2.3	2.5	4.7
2 hrs.	6.0	5.9	5.1
Selfish-Unselfish			
1 hr.	1.7	2.7	4.3
2 hrs.	4.0	4.5	4.4
Bad-Good			
1 hr.	3.5	4.8	4.7
2 hrs.	4.5	5.2	4.3
Dislikeable-Likeable			
1 hr.	3.1	3.7	5.2
2 hrs.	4.2	4.9	4.6
Not Preferred-Preferred			
1 hr.	2.8	2.4	5.1
2 hrs.	4.6	5.4	3.7

Note: The higher the value, the more the confederate was
evaluated as fair, preferred as a partner, et cetera.

Furthermore, as expected, there were significant effects of inputs under both the threat ($F = 49.62$) and the suggestion ($F = 41.90$) conditions but not under the no message ($F < 1$) conditions. If the confederate explicitly indicated that he wanted two-thirds of the money for himself, he was evaluated as less fair when he worked one hour than when he worked two hours (See Table 5), thus strongly supporting the hypothesis.

An analysis of the remaining significant interactions (See Table 4) all revealed strong support for the hypothesized influence of the norm of equity. However, the prediction that the use of threat would result in less favorable evaluations on these scales than would the use of suggestion or the sending of no message was not supported statistically, though the differences were usually in the expected direction (See Table 5).

As hypothesized, the source of either a threat or a suggestion received more favorable ratings on these scales if he had worked two hours than if he had worked only one hour (for likeableness, $F = 3.73$, $p < .07$); for all other scales, F -values ranged from 4.44 to 17.14, $p < .05$). Furthermore, there was a significant message effect for each of these scales for the one-hour input condition. The source of either a threat or a suggestion was evaluated less favorably than someone who sent a statement of no message (F -values ranged from 4.97 to 9.18, $p < .05$). The threat and suggestion conditions, however, did not significantly differ from each other for any of these scales ($p > .10$). In addition, there were no significant message effects for any of these scales when the confederate had worked two hours.

Further multivariate analysis also revealed significant main effects for both message and input ($F = 3.19$, $df = 14/96$; $p < .0004$ for message and $F = 10.04$, $df = 7/48$; $p < .0001$ for input). However, as indicated above, the pattern of responses to most of the scales is more appropriately described by an interaction between these two variables. Consequently, only the main effects for each scale that are not qualified by an interaction are discussed. One such main effect ($F = 18.77$, $p < .001$) was found for the competitive-cooperative scale. Further analysis through Duncan's Multiple Range tests showed that the source of a threat was perceived as more competitive ($\bar{X} = 2.10$) than the source of either a suggestion ($\bar{X} = 3.85$) or no message ($\bar{X} = 4.60$).

Success of Manipulations

Whether or not the threat and suggestion called for an equitable distribution was varied by the number of hours that the confederate worked in comparison to the subject. If this manipulation was successful, the confederate should have received more money if he worked two hours than if he worked one hour. Results revealed that the inputs of the confederate did significantly affect the distribution of wages ($F = 66.36$; $df = 1/54$; $p < .001$). As expected, the confederate was given a greater share of the money when he worked two hours ($\bar{X} = \$3.71$) than when he worked one hour ($\bar{X} = \$2.87$). This was the only significant effect found for the distribution of wages. Also, that the source of either a threat or a suggestion was evaluated as more fair in the two-hour input condition than

in the one-hour input condition (see above) is further evidence that the manipulation of equitable wage distribution was successful.

Because the confederate always had the power to veto the final distribution of rewards, it is possible that the suggestion and even the statement of no message were perceived as implicit threats, especially in the one-hour input conditions. However, that the source of a threat was rated as more competitive than the source of either a request or no message regardless of inputs, indicated that only the threat was generally perceived as a coercive device.

Discussion

Deutsch and Krauss (1962) found that threats which actually functioned as coercive devices could generate an increase of conflict that often resulted in detrimental consequences for the parties involved. They suggested that these results occurred because of the negative reactions to the threat itself. However, in the present study, negative reactions to a threat only resulted when the threatener demanded an unfair share of the money. Furthermore, since similar results were found when a suggestion was sent instead, the evidence from the present research indicated that the reactions reported by Deutsch and Krauss (1962) might have been more a function of the perception that demands were arbitrary and unfair than from the actual use of threat per se.

Furthermore, tests of significance did not reveal strong evidence that the sender of a threat was evaluated less

favorable than the sender of a suggestion. Table 5 shows, however, that the differences between these two types of messages were in the predicted direction in 8 out of 10 comparisons. In addition, an individual who used a threat was perceived as being more competitive and more strong than if he had used a suggestion, although neither of these scales necessarily indicated negative ratings. Therefore, it is possible that in situations where inputs are more ambiguous, the type of influence itself may become more important in affecting reactions. However, further research is required to show the conditions under which the influence attempt itself would result in more resistance than would the possible violation of fairness.

In summary, both the reactions to the messages and the allocation of rewards were found to be a function of equity. In addition, reactions tended not to differ significantly as a function of the specific type of message that was used as the influence attempt. Thus, as expected, negative reactions to an influence attempt appeared to be primarily a result of the goal of that attempt rather than the specific mechanism used.

EXPERIMENT III

THE EFFECTS OF CAPABILITY AND INTENTIONS ON REACTIONS TO THREAT IN AN INSUFFICIENT PAY SITUATION AND ON FUTURE TRANSACTIONS

As expected, the actual distribution of rewards in experiment II was affected significantly by the other's inputs but not by the type of message. This finding is congruent with previous research which has shown that persons divide rewards in proportion to inputs in the absence of communication (Lane, et al., 1971) and after another had distributed them inequitably (Leventhal, et al., 1969). However, there are situations where the norm of equity does not always result in the division of rewards that is proportional to each member's contributions. Lane and Messe' (1972) found that when there was either insufficient or oversufficient rewards many persons took more money for themselves than warranted by their relative inputs.

Within an insufficient pay situation, the following study compared the differences in reward allocations as a function of the presence or absence of veto power and of the type of message received. In such circumstances, the capability to punish noncomformity--which was absent in the study by Lane and Messe'--might be necessary if the majority of allocators are to completely adhere to the norm of equity (Thibaut and Kelley, 1959). Singer (1959) has stated, however, that the capability to inflict harm upon another is relatively

ineffective unless the intent to use it is conveyed. Therefore, it was hypothesized that because of the insufficiency of rewards, the possession of veto power would result in a more equitable distribution of rewards only when its use for being given less than desired is threatened. Similarly, a person who does not have veto power and, therefore, can only suggest a particular distribution of rewards is expected to receive less money than someone who does have veto power and threatens its use.

In experiment II, a person who indicated a desire for an inequitable distribution of rewards was not only evaluated unfavorably as a person but was also relatively unpreferred as a partner in continued interaction. These results suggest that in subsequent transactions individuals would be less likely to trust and, therefore, to cooperate (Deutsch, 1960) with someone whose intentions appeared unfair or exploitative, than with someone whose intentions did not. To examine this possibility, subjects were asked to play the chicken game (CG) with the person whom they were previously paired for dividing pay. It was hypothesized that the extent of cooperative behavior would be greater when the confederate communicated a preference for an equitable distribution of rewards than for an inequitable distribution.

Finally, as in experiment II, a person was expected to be evaluated more favorably when he indicated a desire for a fair share of the rewards than for an unfair share.

Method

Subjects

Subjects were 112 male students at Michigan State University. They were selected by chance from about 300 persons who had been recruited from introductory psychology courses to voluntarily participate in research for money.

Design

The study used a 2 X 2 X 2 factorial design. The first factor consisted of the presence or absence of veto power. The second factor was the message that was sent. When there was veto power, the subject received either a threat or a statement of no message. When there was no veto power, the source communicated either a suggestion or, again, indicated no message. However, for ease of statistical analysis, the suggestion and threat were considered as equivalent messages. Therefore, the second factor was treated as having only two levels--that of either a message or no message. Finally, the last factor was how much time, either one or two hours, that the source of the message had worked on a task.

Procedure

The procedure for establishing inputs and the allocation of rewards was very similar to that employed in experiment II. However, besides the addition of playing the CG, there were a number of differences between the two methods. First, subjects were run in groups of 14 to 16 persons, although, as before, half of them were always confederates. Secondly,

each subject was given \$3.00 instead of \$6.00 to distribute to himself and the other person with whom he was paired. Also, this money was not divided in any way prior to the subject's actual distribution. Thirdly, half of the time the subjects were told that the other person could veto any distribution. In the other half, there was no mention of veto power (See Appendix A). The threat and the suggestion were also changed to read: (1) "If you don't give me \$2.00 and take \$1.00 for yourself, I will veto." and (2) "I suggest that you give me \$2.00 and take \$1.00 for yourself." The statement of no message was the same as in experiment II. Furthermore, in a given session some of the subjects would receive a message indicating a preferred distribution of the money while others would receive the no message. Finally, the same questionnaire which was administered in experiment II (See Appendix C) was administered after the subjects allocated the rewards and after the play of the CG.

When the subjects had allocated the money and everyone had finished the first questionnaire, the experimenter told them that the first part of the study had been completed and anyone who wished to leave now had the opportunity. However, it was also stated that the second part could be properly carried out only if everyone remained. They were further informed that the second part involved money and would only require 15 minutes more of their time. All subjects stayed for the second part.

A packet containing instructions to the CG, a chart giving the matrix values, 15 chits for designating the individual's choice on each trial, and a form to record choices and payoffs was subsequently handed out to everyone. The instructions to the CG, which were also read aloud by the experimenter, included the information that everyone would be playing with the same person with whom they had been paired during the previous distribution of pay. Each person was also asked to record how he and his partner chose on each trial and the resulting payoffs via the form given to them for this purpose. The CG was then played for ten trials. The monetary values of the matrix for the CG are given in Table 6.

TABLE 6

MATRIX VALUES FOR CHICKEN GAME

		Player I	
		A	B
Player II	A	10,10	4,15
	B	15,4	2,2

After the final play of the CG and the completion of the second questionnaire, each subject was given the appropriate amount of money from both parts of the study and then allowed to leave.

Results

The amount of money that the subject gave to the other person in his pair and the extent of cooperation in the CG were each subjected to a separate analysis of variance. A 2 X 2 X 2 X 2 multivariate analysis of variance with repeated measures on the last factor (summarized in Table 8) was used to examine the responses to the seven questionnaire items which were administered after the reward allocation (time 1) and after the play of the CG (time 2).³ When a multivariate F-value was significant, univariate analyses of variance were again used to further explore the responses to the separate scales.

Reward Allocation

The amount of money that an individual gave to the person with whom he was paired was expected to be greater when the other person not only had veto power but indicated its use for non-compliance than when neither existed. In addition, because of the absence of veto power, the source of a suggestion was expected to receive less money than the source of a threat. This position required a significant power X message interaction for the amount of money given to the other for support. This interaction, however, was not significant (see Table 7).

The analysis did reveal that both the power and the input effects were significant (see Table 7). The confederate was given more money when he had veto power ($\bar{X} = \$1.68$) than

TABLE 7

ANALYSIS OF VARIANCE OF THE AMOUNT OF MONEY GIVEN TO
THE OTHER PERSON: POWER X MESSAGE X INPUT

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Power (A)	1	.602	7.00**
Message (B)	1	.115	1.34
Input (C)	1	5.985	69.59***
AB	1	.116	1.35
AC	1	.004	.05
BC	1	.011	.13
ABC	1	.008	.09
<u>Ss</u> within conditions	104	.086	

**p < .01

***p < .001

when he had not ($\bar{X} = \$1.54$) and when he had worked two hours ($\bar{X} = \$1.84$) than when he had worked only one hour ($\bar{X} = \$1.38$).

Cooperative Behavior in the CG

Subjects were hypothesized to choose cooperatively more often in the CG when the confederate appeared equitable in his intentions than when he did not. Support for this hypothesis would require a significant message X input interaction. No differences in the extent of cooperative behavior, however, were found among any of the experimental variables. Consequently, none of the experimental manipulations had any apparent systematic effect upon the play of the CG. Therefore, the hypothesis was not confirmed.

Evaluation of the Source of the Message

As in experiment II, it was expected that the confederate would be evaluated more favorably when he indicated that he preferred an equitable distribution of the money than when not. This hypothesis required any significant effect containing a message X input interaction. In support of the prediction, the multivariate F -values were significant for the message X input interaction and for the message X input X repeated measures interaction (See Table 8). Further exploration of these interactions revealed that only the message X input interaction for unselfishness ($F = 4.38$; $df = 1/48$; $p < .05$) and the message X input X repeated measures interaction for fairness ($F = 24.15$; $df = 1/48$; $p < .0001$) were significant. Each of these interactions were further examined by use of simple effects.

TABLE 8

MULTIVARIATE ANALYSIS OF VARIANCE WITH REPEATED MEASURES
OF THE RESPONSES TO THE SEVEN QUESTIONNAIRE ITEMS:
POWER X MESSAGE X INPUT

Source	<u>df</u>	<u>F</u>
Power (A)	14	1.57
Message (B)	14	2.00*
Input (C)	14	2.00*
AB	14	1.40
AC	14	2.51*
BC	14	2.71**
ABC	14	.47
<u>Ss</u> within conditions	35	
Repeated mesaures (D)	7	11.90***
AD	7	2.24*
BD	7	2.90*
BC	7	2.90*
ABD	7	.31
ACD	7	3.37**
BCD	7	4.30**
ABCD	7	.50
D X Ss within conditions	42	

*p < .05

**p < .01

***p < .001

As predicted, significant effects for selfishness were found for message only under the one hour input condition ($F = 11.03$; $p < .01$) and for inputs only under the condition where the message indicates a preference in the distribution of the rewards ($F = 6.29$; $p < .01$). The confederate was perceived as more selfish if he had worked one hour and sent a message than if he had worked two hours and sent a message or if he had worked one hour and sent a statement of no message (See Table 9).

Significant message X input effects for fairness were found when measured after the reward allocation but not after the CG. The three-way interaction is presented in Table 10. As predicted, for time 1, a significant effect for input occurred only when a message was sent ($F = 63.24$; $p < .0001$) and for message only when the confederate had worked one hour ($F = 37.42$; $p < .0001$). The source of a message was perceived as less fair in the one hour input condition than in the two hour input condition. Also, a person who had worked one hour was evaluated as less fair if he had sent a message than if he had not. Finally, the ratings of fairness improved from time 1 to time 2 for the message sent-one hour input condition ($F = 84.15$; $p < .0001$), for the no message sent-one hour input condition ($F = 6.87$; $p < .01$), and for the no message sent-two hour input condition ($F = 12.89$; $p < .01$).

The favorableness of other ratings were expected to be a function of fairness. Since differences in fairness were as predicted, it is surprising that, unlike experiment II,

TABLE 9

CELL MEANS FOR THE SIGNIFICANT MESSAGE X INPUT
INTERACTION FOR UNSELFISHNESS

Inputs of Confederate	Message Condition	
	Sent	Not Sent
1 hour	4.18	2.55
2 hours	2.93	2.75

Note: The higher the value, the more the confederate was evaluated as selfish.

TABLE 10

CELL MEANS FOR THE SIGNIFICANT MESSAGE X INPUT X
REPEATED MEASURES INTERACTION FOR FAIRNESS

				Repeated Measures	
				Time 1	Time 2
Message	Yes	Input	1 hr.	5.72	2.22
			2 hrs.	2.00	1.93
	No	Input	1 hr.	2.86	1.86
			2 hrs.	2.86	1.50

no significant message X input effects occurred for the like-dislike, good-bad, and preferred-not preferred scales. However, immediately after the allocation of pay, differences in perceived fairness did correlate positively with likeableness ($r = .37$; $p < .05$), goodness ($r = .43$; $p < .05$), and desirability as a future partner ($r = .45$; $p < .05$), thereby giving some support to this hypothesized relationship.

The remaining significant multivariate effects (see Table 8) were also examined. Only those effects which were not included in a significant higher order interaction are discussed. The message effect for goodness ($F = 4.55$; $p < .05$) and the message X repeated measures effect for potency ($F = 6.27$; $p < .02$) were significant. The source of a message was perceived as better ($\bar{X} = 3.32$) than the source of no message ($\bar{X} = 2.71$). The source of a message was also perceived as stronger ($\bar{X} = 3.18$) than the source of no message ($\bar{X} = 4.07$), but only after the reward allocation ($F = 5.85$; $p < .05$).

Five of the scales were involved in significant power X input X repeated measures interactions. The relevant F -values for each of these scales are presented in Table 11. In addition, the cell means for each of the interactions is given in Table 12. Simple effects were employed to further examine these interactions. All of the following differences were significant at or less than the .05 level. After the reward allocation, a person who had worked one hour was perceived as less fair ($F = 7.58$) and less cooperative ($F = 8.81$) when he had veto power than when he had not. Also after the rewards had been divided, a person who possessed veto power

TABLE 11

THE F-VALUES FOR THE SIGNIFICANT POWER X INPUT X
REPEATED MEASURES INTERACTIONS

Scale	F-Value ^a
Unfair-Fair	14.45***
Selfish-Unselfish	5.94*
Bad-Good	5.36*
Competitive-Cooperative	4.97*
Weak-Strong	7.20**

^adf = 1/48

*p < .05

**p = .01

***p < .001

TABLE 12
CELL MEANS FOR THE SIGNIFICANT POWER X INPUT X
REPEATED MEASURES INTERACTIONS

					Time	
					1	2
Unfair-Fair						
Power	Yes	Inputs	1 hr.	4.929	1.715	
			2 hrs.	2.000	1.786	
	No	Inputs	1 hr.	3.643	2.357	
			2 hrs.	2.857	1.643	
Bad-Good						
Power	Yes	Inputs	1 hr.	3.929	1.929	
			2 hrs.	3.429	2.500	
	No	Inputs	1 hr.	3.357	3.214	
			2 hrs.	3.214	2.571	
Selfish-Unselfish						
Power	Yes	Inputs	1 hr.	4.50	2.143	
			2 hrs.	3.286	2.358	
	No	Inputs	1 hr.	3.715	3.072	
			2 hrs.	3.572	2.143	
Competitive-Cooperative						
Power	Yes	Inputs	1 hr.	5.286	1.929	
			2 hrs.	4.286	2.500	
	No	Inputs	1 hr.	3.214	2.786	
			2 hrs.	3.500	1.857	
Weak-Strong						
Power	Yes	Inputs	1 hr.	4.072	3.429	
			2 hrs.	2.357	2.572	
	No	Inputs	1 hr.	3.429	3.643	
			2 hrs.	4.643	3.572	

was evaluated as less fair ($\underline{F} = 39.32$), less unselfish ($\underline{F} = 4.24$), and weaker ($\underline{F} = 10.79$) if he worked for one hour than if he worked for two hours. At this time, the confederate who worked two hours was rated as stronger ($\underline{F} = 19.18$) when he could veto any distribution than when he could not. Finally, a person who had no power was perceived as weaker ($\underline{F} = 5.41$) when he had worked two hours than if he had worked one hour.

None of the above differences persisted significantly after the play of the CG. However, when the CG was finished, a person who had worked one hour was perceived as better ($\underline{F} = 7.52$) if he had veto power than if he did not (see Table 12).

Further analysis of these interactions indicated that ratings generally increased in favorability from after the reward allocation to after the CG (see Table 12). This occurred in the veto power-one hour input condition for the fair, unselfish, cooperative, and good scales ($\underline{F}$ -values from 26.95 to 70.97); in the veto power-two hour condition for the unselfish, cooperative, and good scales ($\underline{F}$ -values ranged from 4.18 to 8.19); in the no veto power-one hour input condition for the fair scale only ($\underline{F} = 11.35$); and, finally, in the no veto power-one hour input condition for the fair, cooperative, unselfish, and potency scales ($\underline{F}$ -values ranged from 6.93 to 10.13).

Success of Manipulations

As in experiment II, it is necessary to show that whether or not the threat and suggestion called for an

equitable distribution of rewards was a function of the inputs of the confederate. As indicated above, the results showed that the confederate received more money when he worked two hours than when he worked one hour. In further support of the success of the manipulation, the source of either a threat or a suggestion was evaluated as more fair in the two-hour input condition than in the one-hour input condition (see above).

Since a significant difference in potency was found ($F = 5.29$; $p < .05$), the varying of veto power also appeared successful. In general, if a confederate possessed veto power, he was perceived as stronger ($\bar{X} = 3.11$) than if he did not ($\bar{X} = 3.82$).

Discussion

As expected, the results showed that the subjects gave less money if the other person in the pair did not possess veto power. Surprisingly, however, the expressed intent to use the veto for noncompliance did not increase the amount given over that of remaining silent. A likely explanation is that veto power is a form of massive retaliation which always presents a credible, if tacit, deterrent. The lack of predictability, which would exist from having little information about the possessor, might have contributed to this credibility.

A message which indicated a preference for either an equitable or inequitable allocation of rewards did result in the hypothesized differences in perceived fairness and selfishness. However, the favorableness of the other ratings--although

apparently related to perceived fairness--did not vary significantly as a function of a message for an equitable or inequitable distribution. Unlike experiment II, the present study examined a situation in which both persons in the pair could not achieve an equitable wage if compared against past standards (Lane and Messe', 1972). Thus, the participants might have perceived the lack of sufficient funds as partly causing what appeared to be unfair and selfish behavior. Consequently, they were less likely to reject the other for attempting to perpetrate an inequity because some responsibility for the behavior was attributed to situational conditions.

This decrease in responsibility for the attempt to achieve an inequitable distribution of rewards might also explain the failure to find hypothesized differences in cooperative behavior during the play of the CG. Thus, subjects might have been less willing to act upon what happened during the reward allocation since the events might not have indicated reliably what the other was like. In addition, mutual cooperative play of the CG offered the opportunity of earning sufficient pay for everyone (Messe', et al., 1973). Therefore, the risk of choosing cooperatively on the initial trials might have been highly attractive. Because the confederate's choice on the first trial was cooperative and continued to be unless the subject defected, taking the risk was, of course, always rewarded. Thus, whatever apprehensions which the subject might have had about the other were eliminated by

the confederate's game strategy. The lack of differences in preference of the other as a continuing partner after the allocation of rewards and the overall favorableness of the ratings after the CG was over further support this explanation.

That the favorableness of the ratings would be affected by the interaction between the confederate's inputs and his possession of the veto was not expected. Since the existence of the veto meant that the other could eliminate whatever pay either member of the pair would otherwise have received, it is possible that subjects reacted to the possibility that the confederate might be more arbitrary in its use when his inputs were less. Because the opportunity costs would increase as inputs increased, subjects may have felt that the confederate would be more rational--and, therefore, more fair--in his use of veto power when he had worked two hours than when he had worked only one hour. Furthermore, subjects might have evaluated the confederate as less potent when he worked one hour than when he worked two hours in an attempt to compensate for the decrease in predictability (and a loss of security) which would result from the increase of possible arbitrariness. The insufficiency of rewards no doubt contributed to this effect by decreasing the likelihood that the other person would be satisfied if the rewards were divided proportionally to inputs.

In summary, as in experiment II, both the reactions to the messages and the allocation of rewards were found to be a function of equity. In addition, reactions did not

differ significantly as a function of whether the message was a threat or a suggestion. Finally, the results indicate that as the conflict of interest increases, considerations other than just the equitableness of another's goals begin to affect behavior and attitudes toward him.

GENERAL DISCUSSION

A more complete statement than previously given about the combined results and their implications to the study of coercion and conflict appears desirable. Therefore, in this respect, the relative effectiveness of coercion in gaining equitable outcomes and the possible limitations of the norm of equity--and, perhaps, concern over fairness, itself--on reactions to threat as the incompatibility of interests increases are now considered.

Coercion and Equitable Outcomes

An examination of the experimental designs and empirical findings might suggest that the use of threat is relatively unnecessary in achieving an equitable distribution of rewards. For instance, in Experiment I, it might be argued that the increase of cooperation from receiving a threat sent by someone who had suffered undeserved losses would have occurred as a function of receiving any message which implied that previous winnings had been divided unfairly. Furthermore, in the second study, there were no differences in the distribution of wages as a result of the receipt of a threat, suggestion, or statement of no message. Finally, when wages were insufficient if compared to past standards of pay, a threat for a fair share was no more effective in gaining a more equitable allocation of rewards than saying nothing as long as the veto existed. However, it was also found that wages were more

equitably divided when the veto existed than when not. Consequently, the trend of the results might be more appropriately interpreted as indicating that as the temptation to deviate from the norm of equity becomes greater, the existence of personal power--and, perhaps, under other circumstances, its threatened use--becomes increasingly necessary if outcomes are to be distributed most fairly.

Equity and the Extent of Conflict

Results of the present research also suggests the conditions that potentially limit concern over equity as a determinant of reactions to influence attempts. In Experiment III, the incompatibility of interests was potentially greater than in the other studies because of the insufficiency of rewards. In contrast to the second experiment, subjects were found to restrict their evaluation of someone who tried to gain an inequitable share of the money to the dimensions of fairness and selfishness. Thus, it appears that in such situations, orientations characterized by disregard for equity and by self-interest become more tolerable to others. Or, as previously suggested, subjects might find it more difficult to discern if this particular overconcern with self-interest is actually typical of the person or if it is usually restricted to unfavorable situations and, therefore, less informative about more general characteristics.

Regardless of which explanation is correct, Kelley and Thibaut (1969) have suggested that fairness becomes less of a concern to individuals as the conflict of interests increases

because deciding on a set of outcomes based upon such a criterion becomes more difficult to achieve. Thus, in situations where everyone cannot be reasonably happy with a share of rewards which is proportional to inputs or where such a distribution is not possible, attempts by another to satisfy only personal concerns must become a less appropriate basis for judging him. It is possible, however, that, regardless of the extent of incompatible interests, a person who repeatedly attempts to gain an unmerited share of the rewards would, eventually, be perceived as negative on most evaluative dimensions.

It is also interesting to speculate how equity might mediate the reciprocal use of threats as the conflict of interests increases. The results of the second study immediately suggest that persons would be highly likely to counterthreaten only when the other had used his coercive capacity to try and obtain an unfair share of the rewards. Gruder (1972), in fact, found that bargainers used threats four times as often when they believed the other was exploitative rather than fair.

As rewards become scarce, however, persons apparently become interested in gaining or securing a share based more on self-interest and less on a comparison of inputs. Therefore, although the appearance of fairness could still influence the use of coercion, the initiation of threats and counter-threats might be based more on the belief of their necessity for gaining satisfactory outcomes. In support of this possibility, Fischer (1969) reported that the frequency of threats

increased the more that time to come to agreement was negatively related to profits.

Nonetheless, since cooperative behavior in the CG was not affected by attempts to gain a fair or unfair share of the insufficient wages, it is possible that persons who are truly motivated for the rewards will restrain their own competitive actions--including the use of threat--when they believe that cooperative efforts might still be successful in achieving a mutually satisfying set of outcomes. Both Gallo (1966) and Messe' et al. (1973) have demonstrated this restraint by showing that individuals tend to be less likely to risk the possible negative consequences of competitive behavior as they become more highly motivated for the rewards. Thus, on one hand, conflict of interests generates threats. But, on the other hand, the possibility of achieving acceptable outcomes by not increasing or creating conflict appears to reduce their likelihood.

The many possibilities examined in this discussion are, however, still tentative. Although the present research has been suggestive of their accuracy, only future studies can actually demonstrate their validity.

Conclusions

Throughout the three studies, a threat for an equitable share of the rewards--if not always helping--never appeared to hurt the source in respect to the distribution of money or the recipient's evaluation of him. Thus, as originally contended,

the studies consistently demonstrated that threats by themselves do not necessarily generate negative reactions. In addition, as hypothesized, attempts to induce clearly an inequitable distribution of rewards, whether by a threat or a suggestion, resulted in the person being evaluated as unfair, selfish, and, in one study, socially undesirable. Finally, when the possibility of distributing rewards to everyone's legitimate satisfaction decreases, the results suggest that people act less to achieve equity and more to assure themselves of favorable outcomes.

FOOTNOTES

FOOTNOTES

¹For each group, correlations were performed between the extent of cooperation during Block 2 and the amount of change in cooperative behavior from Block 2 to Block 3 and from Block 2 to Block 4. This was done to examine whether or not the interaction could have been a result of such a relationship. None of the eight correlations were significant ($p > .05$).

²In each discussion, the author gave most attention to those implications and results which seemed to have the greatest empirical support. This was considered necessary because of the rather large body of findings obtained from the three experiments.

³If the message conditions are treated as being nested in the power conditions, the results appear highly similar.

APPENDIX A

APPENDIX A

INSTRUCTIONS GIVEN PRIOR TO BLOCK 1 IN EXPERIMENT I

Instructions for Part 1

There will be four parts to this study. Each part will be explained to you at the appropriate time. During each part you will be making a series of choices. That is, you will be making a similar decision a repeated number of times. Each of you has been paired with one other person, so that any decision you make will affect only yourself and one other person. Your identity as well as the other person's in the pair will be kept anonymous.

The choices you make will affect an amount of money paid to the other person as well as to yourself. Please look at the chart on the screen in front of you. Each decision you will be making is simply the choice between the two alternatives, A and B. You will be making this decision a repeated number of times. This will be clearer to you as we go along. The other person will be making a similar choice at approximately the same time. Each pair of choices made by you and the other person will be called a trial. There will be a number of these trials, all involving the same chart. Though you may vary which alternative you choose, you will essentially be making the same decision on each trial.

The alternative you choose, that is, A or B, will combine with the alternative chosen by the other person to

determine a monetary outcome for each of you. Each combination of alternatives will result in a different outcome. All the possible outcomes for a given trial are shown in each cell of the chart. Each person receives one of four possible payments. If you choose A, you will receive three cents or nothing depending on what the other person does. If you choose B, you will receive five cents or one cent depending on what the other person does. If you both choose B, each of you will receive one cent. If one chooses A, while the other chooses B, the one who chose A will receive nothing and the one who chose B will receive five cents. Both your alternatives and your payoffs are in red, while the second person's are in black.

During any choices, you will not know how the other person has chosen until both of you have finished choosing.

When the amber light goes on, if you have any questions, please press the button marked A. If you have no questions, press button B.

Since some of you might not still fully understand the instructions, there will be a practice block of trials. Therefore, during this part of the study only, your choices will not affect the total monetary payoff you will receive at the end of the study.

On any given trial, you will indicate your choice by pressing the appropriate button in front of you. Of course, the button marked A is for alternative A, and the button marked B is for alternative B.

After both individuals in the pair have chosen, one of the cell lights next to the chart will go on indicating how both of you chose and what the payment for each person is. For instance, if the red light in the upper right hand corner went on after both of you have chosen, it would mean that you picked B, while the other member picked A. Therefore, you would receive five cents and he would receive nothing. The cell closest to the light is how both of you chose and what each of you received.

The start of each trial will be designated by the amber light on the box containing the buttons. The light will not go off until you have chosen.

Finally, do not remove your earphones or you will not know when the last trial is over.

INSTRUCTIONS GIVEN PRIOR TO BLOCK II IN EXPERIMENT I

Instructions for Part II

We are now about to begin the second part of the study. Each of you will remain paired with one other person. This person may or may not be the same one you were paired with during the practice trials. Again, the effect of the choices will be limited to the individuals within a given pair. Further, identifies will still be kept anonymous.

The monetary values of the chart are the same. However, unlike the practice trials, you will now receive the monetary outcomes. Again, your choices and payoffs are in red, while those for the second person are in black. The amber light on the box containing the buttons will still designate the start of each trial. The exact number of trials has been determined by chance and may range from six to thirty.

You are also requested to record the choices which you and the second person in your pair make on each trial. This will be accomplished by the form you will find in the envelope marked X. Please remove the form from the envelope. After each trial, write in your choice and the other person's choice in the appropriate space. You are also requested to designate the individual payoffs of each trial. You will know how the other person chose by the cell lights around the chart.

Also, some of you will be allowed to subtract four cents from the other's payment on each trial during this second part. Each individual who is given this option will

also be allowed to send any one message he chooses to write to the other member in his pair before the second part begins.

The individuals who will be allowed to subtract four cents from the earnings of the other person on each trial will do so on the form used to record the choices and payoffs for each trial. Only if you are allowed to subtract four cents on each trial will your form contain the appropriate spaces to designate the use of this option.

None of the forms will be collected until after the last trial. Each of you will be told who, if any, in your pair will be allowed to subtract money from the other's earnings and to send a message.

Finally, let me assure you that you will receive both research credit and whatever amount of money you get from your decisions.

Please do not remove your earphones or you will not know when the last trial is over.

INSTRUCTIONS GIVEN PRIOR TO BLOCK III IN EXPERIMENT I

Instructions for Part III

Part three of the study is about to begin. While each of you will remain paired, the second person will be different. That is, the person with whom you will now be paired is different from the person with whom you were previously paired during the second part. Identities will again be kept anonymous.

The monetary values of the chart have also been changed. As an example, if both of you choose A, each of you would now receive five cents. The number of trials involving this chart will be randomly selected and, again, may vary from six to thirty.

The forms which each of you filled out contain the information not only of how each person in a given pair chose, but also what happened to each as a consequence of the choices. Therefore, the possession of the form which the new member in your pair filled out during the second part could assist you in deciding how you will choose. This study is partly interested in whether such information will actually affect how you do choose. Consequently, some individuals will receive their new member's form while some will not. You will be told who received the other's form. If you are given your new member's form, please look at it carefully. Also, during this part of the study, you will not have to continue filling out the form.

Again, some of you will be allowed to subtract four cents from the other's payment on each trial during this third part.

Those individuals who are given this option will again be allowed to send any one message he chooses to write to the new member in his pair before the third block of trials begins. However, messages will not be sent until after the forms from the second part of the study have been distributed. That is, you cannot send or receive a message until after you have been given the other's form or told you will not be given one.

The individuals who will be allowed to subtract four cents from the earnings of the other on each trial during the third part will do so by means of a form. Only those who have this option will be given such a form. These forms will not be collected until after the last trial. However, not until after the fourth and final part of the study will anyone be given any information which would indicate how often, if at all, the four cents were subtracted. Each of you will be told who, if any, in your pair will be allowed to subtract money from the other's earnings and to send a message.

Again, be assured that you will receive both the research credit and the money.

The person who will be informing you of who will be receiving the forms, sending messages, etc., will answer any questions you may have.

Finally, please keep your earphones on so that you can be informed when the last trial is over and you can receive any further instructions.

INSTRUCTIONS GIVEN PRIOR TO BLOCK IV IN EXPERIMENT I

Instructions for Part IV

This is the fourth and final part of the study. Again, you will remain in a paired situation. However, this time the other individual will not change. That is, the pairs will be the same as in the third part of the study. As before, any effect of the choices will be restricted to the individuals within a given pair. Identities will continue to be kept anonymous.

The monetary values of the chart have again been changed. For instance, if one of you chooses A and the other chooses B, the one choosing A will now lose one cent and the one choosing B will now receive four cents.

Again, the number of trials will be selected by chance and may range from six to thirty.

In this last part, no messages will be sent. Furthermore, no one will have the option of subtracting any amount from the other person's total. The forms, which were employed to record the use of this option, have been collected. Therefore no changes or additions either favorable or unfavorable can be made to the other person.

Again, please keep your earphones on so that you may be informed of the conclusion of the last trial.

EXAMPLE OF INSTRUCTIONS FOR THE DISTRIBUTION
OF WAGES IN EXPERIMENT II
(Confederate Works Two Hours)

To determine the amount of money you are to be paid, each of you has been paired with one other person on the other side of the room.

Those of you on this side of the room have worked approximately one hour on the Projective Analysis Inventory, while those on the other side of the room have worked approximately two hours on a similar but extended version.

Now that everyone has finished, we are going to leave it up to the individual pairs to decide how much each person in that pair is to be paid. However, identities will be kept anonymous. No one will know who he is paired with.

Each of you on this side of the room has been selected as the person in the pair who will be given a sum of six dollars to divide between the two of you. You may divide the money any way you wish at the designated time.

You will indicate your decision on the distribution of the money on the form which you will find in the envelope. Please remove the form. You will notice that we have already given you one distribution, such that each person in your pair would receive \$3.00. This is alternative A. Of course, you do not have to keep this distribution. You can choose alternative B and then indicate how the money is to be divided. Do not make your decision now. Please wait until you are told to.

Since you divide the money, the other person on the other side of the room will be given what might be called an "absolute veto." If he does not agree with the division of the six dollars, he can refuse the distribution. However, in so doing, he forfeits all the money each of you would have received in pay. The other person in your pair knows how the money is divided in alternative A.

The other person can communicate his intentions and his preferred distribution of the money by sending you one and only one message. (However, you will not be able to send him any messages.) If he chooses to write you, the experimenter will pick up the message and bring it to you. You will not divide the money until after you have received the message. Once you have designated your preferred distribution of the money and the forms have been picked up, your decision becomes final and cannot be changed, not even by yourself.

After your decision, please put the form back into the envelope. Each envelope will be collected and distributed to the appropriate person on the other side of the room. The other person will then decide whether to accept or veto your decision on the division of the six dollars.

Precautions will be taken to keep identities anonymous. When the individuals on the other side are writing their messages, each of you will turn and face the other direction. When you are making your decision on the distribution, those on the other side will face a different direction, etc.

In summary, you will divide six dollars between yourself and another person on the other side of the room. The other person can veto the distribution of the money but with the consequences of no one receiving any money. He can also send you one message. After you have received the message, you will then indicate on the designated form how you wish the money to be divided. The other person will be told and then he may accept or veto your decision as he wishes.

Prior to the actual receiving of your pay, you are requested to fill out a short questionnaire. After you have finished the questionnaire, you will receive the appropriate amount of money and you may go.

If you do not fully understand what has been stated above, please re-read the instructions.

EXAMPLE OF INSTRUCTIONS FOR THE DISTRIBUTION
OF WAGES IN EXPERIMENT III
(Veto Power Exists, Confederate Worked One Hour)

Part I

To determine the amount of money you are to be paid, each of you has been paired with one other person on the other side of the room. All of you have worked approximately one hour on the Projective Analysis Inventory.

Now that everyone has finished, we are going to leave it up to the individual pairs to decide how much each person in that pair is to be paid. However, identities will be kept anonymous. No one will know who he is paired with.

Each of you on this side of the room has been selected as the person in the pair who will be given a sum of three dollars to divide between the two of you. You may divide the money any way you wish. However, please wait until you are told to divide the money.

You will indicate your decision on the distribution of the money on the form which you will find in the envelope. Please remove the form. In the appropriate places, designate how much of the three dollars each of you are to receive. The total must sum to three dollars.

Since they divide the money, each of you on this side of the room will be given what might be called an "absolute veto." If you do not agree with the division of the three dollars, you can refuse the distribution. However, in so

doing, you forfeit all the money each of you would have received in pay.

In addition, those of you on this side of the room can communicate your intentions and preferred distribution of the money by sending one and only one message. Only those of you on this side can send a message. If you choose to write, your message will be picked up and given to the appropriate person on the other side of the room.

After you have received the message, you will then divide the money. After your decision, please put the form back into the envelope. Each envelope will be collected and distributed to the appropriate person on the other side of the room. Once you have designated your preferred distribution of the money and the forms have been picked up, your decision becomes final and cannot be changed, even by yourself.

After you have been given the form with the indicated distribution of money, you will then decide whether to accept or veto the division. You will do this by writing "veto" or "accept" on the bottom of the form.

Of course, precautions will be taken to keep identities anonymous. When the messages are being written, those of you on this side will turn and face the door. Also, when the decision on the distribution is being made, those of you on this side will turn and face the windows.

I will now summarize the instructions. Those of you on this side will divide three dollars between yourself and another person on the other side of the room. Those of you on this side can veto the distribution of the money but with

the consequence that no one in your pair will receive any money. You can also send one message of your own writing to the other person in your pair. This message will be given to the person who will divide the money before the actual division.

You will now write your message. And will you please turn and face the door.

INSTRUCTIONS GIVEN FOR THE CHICKEN GAME
IN EXPERIMENT III

Part II

You will once more be paired with someone on the other side of the room. In fact, this other person will be the same one with whom you were previously paired for purposes of deciding the amount of money each of you were to be paid. Again, the other person's identity as well as your own will be kept anonymous.

During this part, each of you will be choosing between the same two alternatives a repeated number of times. Please look at the chart handed out to each of you. Each decision you will make is simply the choice between the two alternatives, A and B. The other person will be making a similar choice at approximately the same time. Each pair of choices made by you and the other person will be called a trial. There will be a repeated number of trials, all involving the same chart. Though you may vary which alternative you choose, you will essentially be making the same decision on each trial.

The numerical figures that you see on the chart represent the possible monetary payoffs for each person in your pair for each trial. The alternative you choose, that is, A or B, will combine with the alternative chosen by the other person to determine the monetary outcome for each of you. As you can see, each combination of alternatives results in a different outcome. All possible outcomes for a given trial

are shown in each cell of the chart. If you choose A, you will receive either 10¢ or 4¢, depending upon what the other person in your pair does. If you choose B, you will receive either 15¢ or 2¢, depending upon what the other person does. If you both choose A, each of you will receive 10¢. If you both choose B, each of you will receive 2¢. If one of you chooses A and the other chooses B, the one who chooses A will receive 4¢ and the one who chooses B will receive 15¢. Your payoffs are in the unlined spaces while the other person's are in the lined spaces.

You will indicate your choice on each trial by checking one of the spaces on the slips of paper given to you. When you have done this, please fold the slip in half. After you have chosen, the slips of paper will be picked up and given to the other person in your pair. Similarly, you will receive the slip of paper which indicates the other person's choice. This transaction will occur about the same time. Consequently, during any choice, neither of you in the pair will know how the other is choosing until after both of you have chosen. We will inform you of the start of each trial.

Each of you has a form for recording your choice and the other's choice for each trial. Where it says "my choice" indicate the alternative you have selected. Where it says "his choice" indicate the alternative the other person has selected. And so forth. You will be able to do this after each trial because you will receive the slip of paper which the other person used to indicate his choice.

In review, each of you are paired with the same person you were paired with earlier. Each of you will be making a similar decision repeatedly. How each of you choose will combine to determine a specific payoff to each of you. Finally, you will indicate how each of you chose on the record form given to you for this purpose.

After the last trial, you will receive the total amount of money that you earned for your services for both parts of the study.

Are there any questions?

APPENDIX B

APPENDIX B

RECORD OF SUBJECT'S NEW PARTNER'S CHOICES AND WINNINGS DURING BLOCK II GIVEN IN EXPERIMENT I

After each trial, write in the appropriate spaces how both you and the second person in your pair chose. Also, indicate the resulting monetary consequences both to yourself and to the second person. There will be sufficient time between trials to record the designated information. Further, since this record will be used in the third part of the study, it is important that you conscientiously fill it out.

Trial	My Choice	His Choice	My Pay	His Pay
1	A	B	0	5
2	A	B	0	5
3	B	B	1	1
4	B	B	1	1
5	A	B	0	5
6	A	B	0	5
7	B	B	1	1
8	A	B	0	5
9	B	B	1	1
10	B	B	1	1
11	B	B	1	1
12				
13				
14				
15				

Trial	My Choice	His Choice	My Pay	His Pay
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

APPENDIX C

APPENDIX C

QUESTIONNAIRE ADMINISTERED IN EXPERIMENT I

Questionnaire I

Please indicate your impressions of the second person in your pair on the scales below. In the example given, if you had marked the scale as shown, you would have considered the second person to have been or to be slightly dishonest.

Example:

honest: __:__:__:__:X:__:__: dishonest

In a similar manner, please indicate your impressions of the second person in your pair by placing an X within the proper spaces. Put only one X on any given scale. Also be sure that you have indicated your impression on all the scales.

strong: __:__:__:__:__:__: weak

untrustworthy: __:__:__:__:__:__: trustworthy

fair: __:__:__:__:__:__: unfair

competitive: __:__:__:__:__:__: cooperative

unselfish: __:__:__:__:__:__: selfish

trusting: __:__:__:__:__:__: untrusting

revengeful: __:__:__:__:__:__: forgiving

believable: __:__:__:__:__:__: unbelievable

Please answer these questions by again placing an X
within a space.

1. If your acquaintance with the second person in your pair were to continue, to what extent do you think you would become friends?

remain /___/___/___/___/___/___/___/ become friends
 acquaintances

2. If the second part of this study continues to involve pairs, to what extent would you prefer the second person in your pair to be the same as in the first part?

preferred /___/___/___/___/___/___/___/ not preferred

After you have finished, press button A.

QUESTIONNAIRE ADMINISTERED IN EXPERIMENT II AND III

1. Please indicate your impressions of the other person in your pair on the scales below. In the example given, if you had marked the scale as shown, you would have considered the other person to have been or to be slightly dishonest.

Example:

honest :__ :__ :__ :__ : X :__ :__ : dishonest

In a similar fashion, please indicate your impressions of the other person in your pair by placing an X within the proper spaces. Put only one X on any given scale. Also, be sure that you have indicated your impressions on all the scales.

fair :__ :__ :__ :__ :__ :__ :__ : unfair

selfish :__ :__ :__ :__ :__ :__ :__ : unselfish

cooperative :__ :__ :__ :__ :__ :__ :__ : competitive

likeable :__ :__ :__ :__ :__ :__ :__ : dislikeable

weak :__ :__ :__ :__ :__ :__ :__ : strong

good :__ :__ :__ :__ :__ :__ :__ : bad

2. If you were to be paired with one other person again for purposes of dividing money, to what extent would you prefer the other person in your pair to be the same?

preferred / / / / / / / not preferred

3. Were you given any prior knowledge about what was going to occur in this study? If so, what information were you given?
4. Do you have any suspicions about this study? If so, what are they and did they affect your behavior?

APPENDIX D

APPENDIX D

FORM FOR DISTRIBUTING WAGES IN EXPERIMENT II

You are to use this form in indicating how you wish the money to be distributed between yourself and the other person in your pair. One distribution of the money is already given in alternative A. If you accept this division, just circle "alternative A." If you decide to choose alternative B, you must also state how you want the money divided. The other person in your pair knows how the money is divided in alternative A.

Alternative A

I will give myself \$ 3.00
I will give the
other person \$ 3.00

Alternative B

I will give myself \$ _____
I will give the
other person \$ _____

accept _____

veto _____

FORM FOR DISTRIBUTING WAGES IN
EXPERIMENT III

You are to use this form in indicating how you want the three dollars to be distributed between yourself and the other person in your pair. The three dollars can be divided any way that you wish. However, the combined pay for each of you must sum to three dollars.

I will give myself \$ _____

I will give the
other person \$ _____

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