

Equity v. Equality: The Role of Gender and Disclosure of  
Allocation on Individual Reward Allocation Decisions

by

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ABSTRACT

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(Abstract)

Research on reward allocations has consistently found differences in the manner in which men and women allocate rewards between themselves and others (Kahn, O'Leary, Krulewitz, & Lamm, 1980; Major & Adams, 1984; Major & Deaux, 1982). Overall, the research seems to suggest that when asked to divide a reward between themselves and a partner, men tend to use the equity norm to allocate rewards; whereas, women tend to use the equality norm to allocate rewards. However, a number of studies have been conducted which seem to demonstrate that a variety of situational factors mediate the gender of allocator effects such as input level of the allocator and his/her co-workers, gender of the co-worker, expectancy of future interaction with the co-worker, and type of reward allocation.

The purpose of the present research was two-fold: (1) to examine individual differences influencing an allocator's choice of an allocation strategy, such as how anticipation of future interaction with the recipients of an allocation decision would influence an allocator's reward allocation; and (2) whether a

person's self-esteem level might impact on how an individual might allocate a reward.

In general, the results of the current research suggest that previously observed differences between men's and women's allocations may not reflect true underlying differences between the genders in terms of their preferences for allocation strategies. Allocation strategies appeared to vary as a function of the gender and input levels of the recipients of the reward and whether the type of allocation decision was a joint or independent situation. Both men and women tended to allocate rewards either equitably or using a compromise between equity and equality. Self-esteem was also found to influence the amount of the reward men and women allocated to the high performer and to themselves. Unfortunately, disclosure of allocation was not found to have a major effect upon how subjects allocated rewards. Several alternative explanations for these results are discussed.

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This research is the end result of six years of training, learning, and growth. It would not have been possible without the support of many professors, colleagues, friends, family, and mentors.

I would like to express my heartfelt appreciation to my committee chairman and advisor, Dr. Joseph A. Sgro, for his support and guidance throughout my graduate school career. The present study certainly would not have been finished, let alone been possible, without his assistance and persistence. My sincere appreciation is also extended to the present and past members of my committee, Drs. Anne Baumgardner, Roseanne Foti, Neil Hauenstein, Dennis Hinkle, Chris Peterson, and Stephen Zaccaro for their invaluable suggestions, collaboration, and advice.

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## INTRODUCTION

### EQUITY THEORY AND REWARD ALLOCATIONS

The allocation of resources among members of an organization is a complex issue. A fair and just solution can result in increasing harmony and cooperation within a group and a feeling of satisfaction among the members of the organization. Due to the complexity of the resource allocation issue, a number of distributive justice rules have been proposed. Early researchers such as Homans (1961) and Adams (1965) have proposed an explanation for how resources are distributed in an exchange relationship. Equity theory (Adams, 1965) and distributive justice theory (Homans, 1961) purport that equity and justice exist when each person's inputs in an exchange is proportional to the outcomes the person receives from the exchange. Due to the present study being proposed, the present literature review will concentrate on the research surrounding the use of equitable and equal distribution norms to allocate resources.

### Background of Equity Theory

A number of theories concerning distributive justice and social exchange have been developed (Adams, 1965; Homans, 1961). Homans (1961) first introduced the concept of distributive justice in his exchange theory of social interaction. Homans' fundamental rule of distributive justice states that an individual in an exchange relationship with another individual has two expectations: 1) that

the rewards of each will be proportional to the costs of each; and, 2) the net rewards of each individual in the exchange will be proportional to their investments.

Equity theory, introduced by Adams (1965) and reformulated by Walster and her colleagues (Walster & Walster, 1975; Walster, Berscheid, & Walster, 1976; Walster, Walster, & Berscheid, 1978), proposes a view of social interaction and reciprocal exchange which is governed by a norm of distributive justice. Adams' (1965) theory of equity focuses primarily upon the "causes and consequences of the absence of equity in a human exchange relationship (1965, p. 276). In developing his theory, Adams drew upon the work of Homans' (1961) concept of distributive justice, social comparison theory (Festinger, 1954), cognitive dissonance theory (Festinger, 1957), and the concept of relative deprivation (Crosby, 1976).

Equity theory (Adams, 1965) posits that individuals who are in an exchange relationship with other individuals will seek to balance their inputs against their outcomes. Inputs are considered to be factors such as education, experience, and effort that a person perceives as relevant to a particular exchange for which he or she expects to receive some return. Adams conceptualizes outcomes as being rewards that a person perceives that he or she is receiving in a specific relationship. Outcomes include all factors seen to be returns on an individual's job investment such as pay, fringe

benefits, and status. An equitable exchange can occur under two conditions: 1) Person and Other can be engaged in a direct social exchange; or, 2) Person and Other can be in an exchange relationship with a third party and Person compares himself or herself to Other (Adams, 1965). The key to equity theory is a participant's perception of his or her ratio of inputs to outcomes which are compared to another participant's ratio of inputs to outcomes. The equity model states that members in an exchange relationship will allocate rewards to themselves and to their partner in proportion to each individual's contributions to a goal. Thus, a person in an exchange will be motivated to make his or her outcomes and inputs proportional to his or her partner's outcomes and inputs.

There are three primary points which are emphasized in Adams' (1965) version of equity theory: 1) equity theory assumes that individuals will receive a fair return for their contributions to a task; 2) equity theory includes the concept of social comparison such that an equitable input-to-outcome ratio is based on an employee's comparison with another individual's input-to-outcome ratio; and, 3) individuals who perceive themselves to be in an inequitable relationship will seek to reduce that inequity either by cognitively distorting their inputs and/or outcomes, by directly altering their inputs and/or outcomes, or by withdrawing from the exchange relationship.

Standards of Comparison in Equity Theory

The value of an exchange to an individual is a function of the outcome to input ratio. Equity exists when the ratio of a Person's (p) outcomes (O) to inputs (I) is equal to Other's (o) ratio of outcomes to inputs (Adams, 1965):

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

Adams (1965) and Walster et al. (1978) contend that the focus of equity theory is the relationship between the participants in an exchange. It is the participants in the exchange who decide whether a relationship is equitable. Each person's perception of how equitable the relationship is depends upon his or her assessment of the relevance and value of the inputs and outcomes in the relationship. If each of the individuals in an exchange relationship assesses each participant's inputs and outcomes differently, they will disagree on whether the relationship is fair. Thus, equity theory is a social comparison theory since equity is obtained when each person's outcomes relative to his or her inputs are equal. A crucial determinant of judgments concerning whether equity exists in a relationship is the characteristics of the person (or persons) with whom one compares inputs and outcomes. One of the difficulties with equity theory is its vague specifications of the "other" which is used in making evaluations of fairness by an individual (Austin, 1977).

Austin (1977) suggests that the "comparison other" can either be another person with whom an individual is usually linked by a relationship, interaction, or a reference group (other individuals in a similar position, role or status). The reference group can also be an abstraction based upon a relatively broad class of "others" that may be relevant for comparison purposes (Adams, 1965; Campbell & Pritchard, 1976). The referents or "comparison others" which are used for equity comparisons can vary along proximity, similarity, or instrumentality dimensions (Austin, 1977).

Various studies (Adams, 1965; Lane & Messe, 1971; Pritchard, 1969; Taynor & Deaux, 1973) suggest that an individual's perception of equity can also be based on an internal standard of input and outcome ratios rather than a particular comparison person. Lane and Messe (1971) suggest that rather than using a specific person as a "comparison other", individuals may evaluate their own and their partner's input-to-outcome ratios in terms of some internal standard. They also suggest that at times an individual's own concerns about receiving a fair share may be more important than concerns with their partner's fair share. Taynor and Deaux (1973) and Pritchard (1969) suggest that a "comparison other" does not have to be physically present in all situations for the equity model to be relevant. It is possible that a "comparison other" may be internalized within an individual and always available for comparison (Pritchard, 1969).

### The Concept of Inequity in Equity Theory

The basic thrust of equity theory and the subject of much research has addressed the conditions of inequity. According to Adams (1965), inequity exists in the following situation: "Inequity exists for Person (p) whenever he perceives that the ratio of his outcomes (O) to inputs (I) and the ratio of Other's (o) outcomes to Other's inputs are unequal" (p. 280). Adams argues that when an individual is in an equitable exchange, the individual is content and will strive to maintain the balanced condition. However, when a person is in an exchange which he or she feels is inequitable, the individual will act to reduce the inequity. A state of inequity occurs when a discrepancy exists between what an individual actually receives in an exchange and what the individual believes he or she ought to receive. Adams suggests that this results from an individual's need to maintain cognitive consistency.

In the case of inequity, dissonance among certain cognitive elements become distressing to an individual, and result in motivating that individual to reduce or eliminate the distress. The motivating force in equity theory becomes a function of the disproportion which exists between Person's and Other's outcomes and inputs (Greenberg, 1980). Adams (1965) argues that an inequitable relationship results in the following:

1. Perceived inequity creates tension in an individual.
2. The amount of tension is proportional to the magnitude of the inequity.

3. The tension motivates the individual to reduce it.
4. The strength of the motivation to reduce the inequity is proportional to the perceived inequity (p. 282).

A variety of researchers suggest that there are several underlying motivational factors which result in an individual striving to reduce inequity and maintain distributive fairness (Homans, 1961; Lerner, 1975; Leventhal, 1976; Walster et al., 1973):

- 1) the need to maintain cognitive consistency;
- 2) a need to maintain distributive fairness because people reward the individual for being fair by cooperation and approval; and,
- 3) it allows one to maintain a favorable self concept and to bolster personal self-esteem.

Lerner (1975) also suggests that people have a need to believe in a "just world", one in which people get what they deserve. Based on cognitive dissonance theory (Festinger, 1957), Adams (1965) suggests that feelings of inequity can be reduced in a variety of ways. An individual can restore equity by actively changing the quality or amount of his or her inputs and outcomes which is labeled "restoration of actual equity" (Adams, 1965, p. 283). Equity can also be restored by leaving the inputs and outcomes intact and changing their worth or value which is labeled "psychological equity" (Adams, 1965, p. 283). An individual may take a variety of actions to reduce inequity with the choice of an action being dependent upon the situation and conditions surrounding the inequitable exchange (Adams, 1965, p. 283-284):



"A. Restoration of 'Actual Equity'

1. Person may increase (decrease) his inputs if they are low (high) relative to Other's inputs and to his own outcomes.
2. Person may increase (decrease) his outcomes if they are low (high) relative to Other's outcomes and to his own inputs.

B. Restoration of "Psychological Equity"

3. Person may psychologically distort his inputs and outcomes, increasing or decreasing them as required.
4. Person may increase, decrease or distort the inputs and outcomes of Others', or force them to leave the field.

C. Other types of restoration if circumstances prevent 'actual' or 'psychological' equity

5. Person may change his referent Other when inequity exists.
6. Person may "leave the field" (i.e, quit his job).

Adams (1965) and Walster et al. (1976, 1978) suggest that people will tolerate inequity until they reach a particular threshold level. This threshold level is different for each individual and is a function of the importance of the inequity, the costs involved in taking an action to reduce the inequity, and the probability that a particular action will result in some resolution of the inequity.

Overreward and Underreward in Equity Theory

A state of inequity can result when the ratio of Person's outcomes to inputs ratio is more than Other's (overreward), or

when Person's outcomes to inputs ratio is less than Other's (underreward).

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

Adams (1965) suggests that although both underreward and overreward result in tension, they may not have similar effects, "the threshold would presumably be higher in cases of overreward, for a certain amount of incongruity in these cases can be acceptably rationalized as 'good fortune' without attendant discomfort" (1965, p. 282). However, it can be possible that overreward might not be perceived as inequity. In such a case, if overreward is considered to be desirable than the tension to reduce inequity would be zero and the individual would not perceive inequity to exist.

Lawler (1968) has seriously questioned the extent to which overpayment in work organizations would lead to perceived inequity. He suggests that any action that an employee would take to restore equity in an overpayment situation would be temporary. Locke (1976) concurs with Lawler and suggests that in an overpayment situation, an employee might realize that restoring "actual equity" would be more costly than restoring "psychological equity". In such a situation, employees would presumably adjust their perceptions of equitable payment to justify the overpayment they are receiving. Mowday (1979) contends that since pay is an employee's means of determining his or her worth to the organization, overpayment

might lead the employee to believe that his or her worth to the organization has increased.

Research suggests that equivocal results exist regarding the effect of underpayment on workers' productivity. Lawler (1968) cites research suggesting that when employees are paid on an hourly basis, they will reduce their productivity and work quality if they feel they are not being paid commensurate with their perceptions of how they should be paid. However, Weick (1964) found that when individuals were underpaid for a task, they worked even harder than individuals who were equitably paid. Weick explains these results in terms of dissonance theory, and suggests that to maintain cognitive consistency, individuals may tend to view the job as being more important than they had originally presumed resulting in individuals exerting more effort to perform the job.

#### Problems with Equity Theory

A number of researchers (Deutsch, 1975; Leventhal, 1976, 1980; Sampson, 1975, 1977; Walster et al., 1973, 1976, 1978) have expressed some reservations concerning Adams' (1965) conception of equity theory and have suggested that it needs further specification in several areas.

Walster and her colleagues (Walster et al., 1973, 1976, 1978) reformulated and extended Adams' (1965) version of equity theory to predict how individuals would react to inequitable relationships and

to extend the range of phenomena to which equity theory was applicable. Specifically, Walster and her colleagues extended equity theory from a theory of work inputs and monetary outcomes in industrial settings to other social psychological problems such as intimate relationships and exploitative relationships.

Walster et al.'s (1976) theory of equity retains a number of Adams' (1965) features, but they have added the concept of negative input-to-outcome ratios as they felt that Adams' equity ratio formula was inadequate in situations where inputs and outcomes might be negative. For example:

$$\frac{O_p}{I_p} = \frac{-6}{2} = -3 \quad \text{or} \quad \frac{O_p}{I_p} = \frac{6}{-2} = -3$$

Both input-to-outcome ratios are equal (-3) which according to Adams would indicate that a state of equity exists, however it is clear that a person who makes positive inputs and receives negative outcomes is not equal to a person who makes negative inputs and receives positive outcomes.

Walster et al. (1976) suggest a reformulation of Adams (1965) equity formula as follows:

$$\frac{(OA - IA)}{IA \quad KA} = \frac{(OB - IB)}{IB \quad KB}$$

"IA, IB, OA, and OB represent the respective inputs and outcomes for actors, A and B. I designates the absolute value of A and B's inputs. A participant's relative outcomes will be zero if his outcomes equal his inputs. KA and KB take on the value of +1 or -1 depending upon the sign of A and B's inputs and A and B's gains (outcomes - inputs). The sign and the

magnitude of the measure indicates how profitable the relationship will be to each of the participants" (p. 5).

Walster et al. (1978) have also suggested reformulations to some of Adams' (1965) original propositions. They suggest that individuals will always try to maximize their outcomes, even if this means that they must sometimes behave inequitably. However, when individuals do behave inequitably, they will become distressed. This distress can be operationalized in the form of anger when subjects are underpaid or in the form of guilt when subjects are overpaid.

Based on their reformulations of equity theory, the basic propositions of Walster et al.'s (1978) equity theory are the following:

- 1) individuals will try to maximize their outcomes (where outcomes equal rewards minus punishments);
- 2) groups (or rather the individuals comprising the groups) evolve definitions of equity and sanction group members on the basis of those definitions;
- 3) inequity will lead to psychological distress which is proportional to the size of the inequity; and
- 4) individuals who are in inequitable relationships will attempt to eliminate their distress by restoring equity (p. 293).

A number of theorists (Deutsch, 1975; Lerner, 1977; Leventhal, 1976, 1980; Sampson, 1975) have strongly challenged both Adams' (1965) version of equity theory and Walster et al.'s (1976, 1978)

reformulation of equity theory on a number of points. These theorists believe that equity theory has outgrown its usefulness and should be replaced by a more comprehensive formulation (Leventhal, 1980). First, these theorists argue that equity concerns overemphasize the importance of fairness in an exchange between individuals, and suggest that fairness may not be as important, or as much of a concern, as Adams (1965) or Walster et al. (1976, 1978) would suggest.

Secondly, the equity norm is only one of many possible justice norms which may influence behavior. Research has suggested that a multidimensional concept of distributive justice rules may operate in an exchange relationship such as the equality rule which dictates that the participants in an exchange should receive similar outcomes regardless of needs or contributions, or the need rule which dictates that the individuals with greater needs in an exchange should receive higher outcomes (Leventhal, 1976, 1980; Lerner, 1977; Sampson, 1975). Sampson (1975) suggests that conceiving of equality as a special case of equity theory as Adams (1965) and Walster et al. (1976, 1978) suggest is a fundamental error, and contends that equity and equality are two very different theoretical distributive justice rules.

Sampson (1975) argues that historically equity and equality solutions to distributive justice problems have been founded on two different assumptions regarding how individuals allocate rewards.

He argues that an equitable allocation of resources according to inputs is a way that society maintains order and creates justice. An equal allocation of resources suggests that different investments do not provide a claim to differential rewards, but that all individuals should deserve the same reward. Sampson suggests that other social psychologists have at times "... erroneously assumed that an equity principle is either the only solution to the distributive problem that has ever existed, or, the most preferred solution in the contemporary Western world ..." (p. 49). He further argues that equality is the foundation of many western conceptions of justice, and suggests that inequality in the allocation of resources has a tendency not to be functional to the survival of society, and at times, is avoided in most social relationships.

Sampson (1975) cites research which contends that individuals who adhere to the equity principle of allocating rewards have a different view of the world than do individuals who allocate resources equally. Equitable allocators tend to view others as potential competitors, and believe that they alone are responsible for their own outcomes. Equal allocators view others as both cooperative and competitive and believe that their own actions will determine what outcomes they and their partners will receive.

Thirdly, Adams and Freeman (1976) suggest that a major problem with equity theory is its lack of quantitative precision. They believe that there needs to be an establishment of a unit of

measurement which is common to both inputs and outcomes and can be perceived as both an input and as an outcome in an exchange.

Lastly, Leventhal (1976, 1980) contends that equity theory's unidimensional approach to fairness is only one of many forces which affect a person's perceptions and behaviors in a social exchange, and is weaker than other forces which may operate in a social exchange.

Thus, there appear to be at least three fundamentally different principles of distributive justice (equity, equality, and need) which may be involved in a social exchange (Leventhal, 1976, 1980; Sampson, 1975). Equity, which is concerned with contributions to an exchange, stresses the importance of individuals comparing their relative inputs to outcomes. Formulations grounded in equality deemphasize inputs and view the equality of outcomes between the actors as the key to distributing rewards. Humanitarian distributions are based on the need of members of a relationship and tend to disregard both inputs and outcomes.

Deutsch (1975) and Leventhal (1976, 1980) suggest that the choice of a particular distribution norm to allocate resources is largely affected by the situation and the type of allocation relationship. Each of the different distribution norms vary in their appropriateness for certain distributive situations and result in different consequences for those individuals who use them. Equity tends to be the dominant principle in situations involving



economic productivity; equality tends to be the dominant principle in situations involving cooperation; and, need tends to be the dominant principle in situations involving personal development and personal welfare (Leventhal, 1976). Therefore, an individual's basic criteria for evaluating the fairness of an exchange may change depending upon the situation. Leventhal (1980) suggests that the choice of a distribution rule will depend upon an individual's belief that the rule is fair and appropriate when the reward is distributed in a certain manner.

#### Use of Equity and Equality Allocation Norms

Understanding the conditions under which equity and equality allocation norms operate has important implications. Many theorists (Deutsch, 1975; Lerner, 1974, 1977; Leventhal, 1976; Sampson, 1975) have suggested that an equity norm of distribution usually serves to maintain the productivity of a group, whereas the equality distribution norm tends to maintain the interpersonal harmony of a group.

Much of the research that has been conducted lends support to the conditions under which equity and equality distribution rules operate. Lerner (1975, 1977) suggests that when an emphasis is placed upon partnership and cooperation within the group, individuals tend to ignore input differences and allocate rewards equally. Kahn (1972) and Leventhal and his colleagues (Leventhal,

1976; Leventhal & Michaels, 1969, 1971; Leventhal, Michaels & Sanford, 1972) support this contention with their research suggesting that groups which proscribe to the equality norm may have more harmonious relationships and less conflict and dissatisfaction among group members. Leventhal et al. (1972) found that when individuals' primary goal was to prevent conflict among members, they reduced the difference between the pay of the best and worst performers, but still allocated more of the reward to the best performer.

The research seems to suggest that the equality distribution rule is used when individuals are more concerned with cooperation and promoting a friendly atmosphere in their group and less concerned with productivity and a competitive atmosphere. However, there may be disadvantages to allocating rewards equally. One disadvantage to equally allocating rewards in a group might be that a group member could contribute less to the attainment of the groups' goals than he or she is able, and still receive the same share of the reward as the other group members. This could result in exploitation of the group. The use of an equality norm might also serve to prohibit competition which could reduce group effectiveness in the attainment of goals (Sampson, 1975).

Several reviews of the equity theory literature (Adams & Freedman, 1976; Carrell & Ditttrich, 1978; Fritchard, 1969) stress the fact that many members of organizations within various settings

(i.e., business, education, government) view the equitable treatment of individuals as being important goals of their organizations. Lawler (1968, 1971) and Katz and Kahn (1975) suggest that equity theory has important implications for organizations. These researchers contend that the concept of equity is closely related to decisions concerning organizational rewards, such as pay and promotions. They have demonstrated that when employees perceive that a state of inequity exists (inputs are not proportional to outcomes), a decrease in employees' motivation and morale can reduce the effectiveness of an organization. Lawler (1971) suggests that allocation rules have a very direct effect upon the quality and quantity of employees' productivity. One way in which individuals will strive to reduce the inequity in a situation is either by increasing or decreasing their productivity commensurate with their ratio of inputs to outcomes (Adams, 1965). However, when a group's goal is to maximize productivity, equally allocating rewards may not provide an incentive for good performers to maintain their high level of performance (Leventhal, 1980).

Extensive support of the equity norm exists in the literature, both in terms of laboratory studies and field studies (Adams & Freedman, 1976; Leventhal, 1976). In laboratory studies, the usual paradigm involves subjects working in dyads or triads and being told that their group performance is a direct determinant of the reward which the group will receive. Subjects are instructed

to allocate the group reward according to the manner in which they see fit. Results indicate that individuals' perceptions of a fair or equitable exchange influences the manner in which they allocate the rewards. Research has also shown that a person who is not part of the exchange, but is put in the position of allocating rewards to a group, tends to allocate rewards based upon equity theory (Leventhal & Michaels, 1969, 1971). Field studies have also provided support for the use of the equity norm within organizations (Adams & Freedman, 1976).

Leventhal (1976) has suggested that many individuals actively strive to maintain equity within their groups and organizations. Leventhal cites evidence suggesting that individuals use the equity principle to allocate rewards because they believe it will be more profitable (i.e., foster higher levels of task performance and facilitate productivity) over the long term. Leventhal found that equitable allocators tend to strongly reinforce those employees whose performance is beneficial to achieving the group's goal. Low reinforcement is given to poor performing employees in order to cause them to change their performance either by increasing their effort and performance or by leaving the group.

Leventhal cites a study by Finn and Lee (1972) which demonstrated that inequitably paid employees who are poor performers are more likely to voluntarily terminate their employment than employees who are equitably paid and good performers. Finn and Lee

found that supervisors of employees who viewed themselves as being inequitably paid (i.e., felt that they were not being treated fairly and were not properly paid in view of their training and expertise) rated these employees less favorably than the employees rated themselves. It appears that because the inequitably paid employees tended to overestimate their worth to the organization, they reported a higher perceived attraction for inducements to leave their jobs than did equitably paid employees. Thus, inequitably paid employees were found to have less favorable work-related attitudes and exhibited a higher propensity to voluntarily terminate their employment. This study indicates that the manner in which a person is paid affects that person's attitude toward his or her work environment.

Finn and Lee's (1972) study is supported by Leventhal (1976) who contends that linking pay and performance through equitable reward allocations results in maintaining effective group and employee productivity. Lawler (1971) also suggests that employees are more productive when their pay is linked to performance than when no such link exists.

Leventhal, Weiss & Buttrick (1973) have demonstrated that pay policies which are based on an equitable distribution of rewards tend to result in perceptions of high profitability because they bring limited resources to individuals who can use them effectively. In other words, when resources are limited, it is best

for an organization to equitably distribute resources to individuals whose past performance suggests that they will perform similarly in the future.

Based on the propositions of equity theory, an equitable distribution of resources should motivate individual group members to make considerable contributions to the group goal in order to receive a larger share of the outcome (Leventhal, 1976). However, consequences resulting from equitably allocating resources, such as creating an extremely competitive atmosphere, can be disadvantageous to a group. In such an atmosphere, individuals might lose interest in the group goal if they feel they have little chance of making a large contribution and receiving a large share of the outcome (Lawler, 1971).

According to Leventhal (1976, 1980), an individuals' choice of a distribution rule may be a function of a desire for fairness, a desire to control recipients' behaviors, or a function of both. Leventhal suggests that an allocator who chooses an equity norm to distribute a reward may do so because he or she wants to maximize recipients' long-term productivity. The allocator may also believe that if he or she follows the equity rule as a criterion for a fair distribution of rewards, he or she may elicit and sustain high productivity from recipients by controlling their behavior. Leventhal contends that individuals who are more productive will use resources more efficiently than will poor performers. The

end result will be higher productivity and a maximizing of the group output.

Leventhal (1976) also suggests that an equitable reward allocation can improve the group's productivity by controlling the membership in a group. Specifically, differential reinforcement of productive and nonproductive group members will increase the likelihood that productive members will stay in the group and maintain the group's productivity, whereas nonproductive members will leave. This will result in increasing the overall quality of the group performance.

Finally, Leventhal contends that allocators who allocate rewards according to the equity principle do so because they are concerned about maintaining fairness in the group. Fairness becomes important in situations in which individuals complain that rewards are being distributed unfairly. Leventhal suggests that allocators who are interested in maximizing group performance tend to adhere to the equity principle to allocate resources because they believe that it is more fair to allocate rewards to individuals based on their inputs than regardless of their inputs.

The above research suggests that allocators adhere to the equity principle for a variety of reasons, such as a desire to maintain fairness in the exchange relationship and a desire to control recipients' behavior through inducements by encouraging

them to be more productive. Leventhal contends that more research needs to be conducted to delineate between situations in which allocators allocate because of fairness of the allocation decision, and situations in which allocators allocate in order to control recipients' behavior to maximize group effectiveness. Thus, while many studies have supported Adams' (1965) and Walster et al.'s (1978) equity theory (i.e., Adams & Freedman, 1976; Leventhal & Michaels, 1969, 1971; Leventhal et al., 1973), other studies have failed to support the basic tenets of equity theory, suggesting instead that rewards are distributed equally (i.e., Reis & Jackson, 1981; Shapiro, 1975).

Many theorists (Kahn, O'Leary, Krulewitz, & Lamm, 1980; Major & Deaux, 1982; Leventhal, 1976; Sampson, 1975) suggest that a moderator of the choice of a distribution norm (equity vs. equality) in the allocation of rewards is that of gender of the allocator. These theorists contend that the literature suggests that women tend to employ equality when distributing rewards, and men tend to employ equity. It appears that women tend to be more concerned with the interpersonal aspects of a social situation than its competitive aspects. Men, on the other hand, tend to be more concerned with maintaining a competitive advantage over others. Sampson (1975) suggests that gender differences in the reward allocation literature seem to parallel socialization practices.



For example, men are trained to be competitive and women are socialized to be more cooperative. However, there appear to be contradictory results and mediating variables within the literature regarding the choice of allocation norms by men and women which will be elaborated upon in later sections of this literature review.

Thus, an important factor inherent in allocation decisions is how distribution norms are used to make an allocation of a particular reward. Researchers (Kahn, Lamm, & Nelson, 1977; Kahn et al., 1980a; Lane & Messe, 1971; Major & Deaux, 1982) have suggested that, in addition to strict input and outcome ratios, an allocation decision may be influenced by a variety of factors which may lead to an explanation as to why such equivocal results concerning the use of the equity and equality distribution norms exist in the literature. The following sections of this literature review will examine the conditions under which the equity and equality distribution norms operate. Specifically, research will be cited which investigates: 1) the role of attributions and their influence on reward allocations; 2) how various situational characteristics affect the use of allocation norms of equity and equality; 3) characteristics of the exchange relationship such as anticipation of future interaction with recipients of the allocation and public versus private allocations; and, 4) the characteristics of both the allocator and recipients of the rewards.

## ATTRIBUTION THEORY AND REWARD ALLOCATION

### Attribution Theory

Much of the research in attribution theory originates from the work of Fritz Heider (1958). Heider suggests that individuals operate very much like quasi-scientists to disentangle and rearrange connections between various behaviors and their probable causes. He contends that individuals use information concerning motivational factors, the ability of a person, and situational factors to infer the cause for a particular behavior; and, concludes based upon the above information, that the cause for an individual's behavior is a function of conditions existing within an individual (internal) or outside of the individual (external), thereby labelling these factors as "locus of causality".

Heider argues, as do other researchers (Weiner, 1979, 1985a, 1985b) that individuals engage in causal attributions in order to fulfill a need to exercise control over events occurring in their life. The process of making a causal attribution consists of an individual observing an outcome or a behavior which leads to an evaluation of the outcome; and, subsequently, the individual makes a causal attribution based upon the outcome of the particular behavior or outcome. Causal attributions are functional because they help individuals to understand various aspects of their environment which facilitates prediction of future behavior. Thus, the focus in attribution theory is on the factors involved in an individual's

attempt to understand events that one observes in one's, including one's own behavior. Weiner (1985b) suggests that once causality for a particular behavior has been determined, individuals are better able to determine how to reward and punish that individual commensurate with the reason for the individual's behavior in the future: "once a cause, or causes, are assigned, effective management may be possible and a prescription of a guide for future action can be suggested" (p. 548).

Building upon Heider's initial work in attribution theory, Weiner and his colleagues (Weiner, 1979, 1985b; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971) suggested that a second dimension, stability, should be added to Heider's locus of causality (internal-external) dimension. Weiner and his colleagues argued that the stability dimension was needed because some causes for a behavior may fluctuate while others remain constant. Weiner et al. characterized the causes for an individual's behavior within a 2 x 2 framework: the stability dimension relates to whether the cause of the behavior will change or not, and the locus of causality dimension relates to whether an individual attributes the behavior to an internal or external factor. Weiner et al. contend that individuals utilize four elements of ascription within these two dimensions to interpret and predict the outcome of an achievement-related event. Individuals infer the causality of another person's behavior in an achievement-oriented situation on

the basis of the person's ability to perform the task, the effort the person exerts on the task, the degree of difficulty of the task, and how luck may influence the outcome of the task.

The causal factors of ability, effort, task difficulty, and luck are used to explain the outcome of the success or failure of an individual's performance. Ability and effort are considered to originate within the person and are labeled as internal; whereas luck and task difficulty are considered to be outside of the person's control and are labeled as external. Ability and ease of task are considered to be relatively stable, whereas effort and luck are considered to be unstable. Individuals assign differential weights to these four elements and on the basis of these weights, attribute the outcome of an individual's performance on a task to one of the four causal sources (Weiner et al., 1971).

Further research in attribution theory resulted in Weiner (Weiner, 1979, 1985a, 1985b) changing the 2 x 2 classification scheme because he felt that it did not realistically represent all the possible causes of an individual's behavior. Weiner (1985b) argues that several limitations existed regarding his original 2 x 2 classification scheme: 1) ability may not remain stable if learning occurs within the individual; 2) effort may become a stable trait of an individual if an individual is labeled "lazy"; 3) the degree of difficulty of a task can change; and, 4) luck may become

a stable trait of an individual if that individual is labeled "lucky" or "unlucky."

Controllability, which relates to the degree of control an individual has over a certain outcome, was added as a third dimension to deal with the above limitations. Rosenbaum (1972, cited in Weiner, 1985b) contends that individuals have the control to change some of their behaviors, such as increasing or decreasing their effort on a task, but they may not be able to change or control other behaviors, such as verbal or mathematical ability. Thus, according to Weiner (1985b), the three dimensions of locus of causality, stability, and controllability underlie a causal attribution for success or failure and are generalizable and reliable across a variety of situations.

A shortcoming of many of the studies in attribution theory is that in most cases the allocator has a limited amount of information available to him or her over a short period of time. Kelley's (1973) concept of covariation or the "analysis of variance" model focuses upon the conditions which influence an observer's ability to attribute an individual's behavior either to a personal disposition of the individual or to a situational explanation. He suggests that individuals make causal attributions as if they were naive scientists, and argues that individuals attribute effects to causal factors which are correlated rather than to causal factors which are relatively independent.

In order to determine which factors influence a particular behavior, Kelley (1973) proposes that causal attributions are a function of three types of information: 1) consensus which is an observation of two or more persons -- how would other people respond to the individual in a similar situation; 2) distinctive which is an observation of at least two entities -- how the individual would respond in a different situation; and, 3) consistency which is an observation over two or more times -- how the individual would respond similarly across time. These three factors covary in an analysis of variance type model and provide a schematic representation as to how an individual's behavior covaries with respect to people, entities, time or a combination of the three. Kelley suggests that one would attribute another individual's behavior to a personal disposition, as opposed to a situational explanation, when the individual's behavior is distinctive from others in the same direction, when there is a high consensus among other observers about the particular behavior, and when the individual's behavior is consistent across time.

Some controversy exists within the literature with respect to Kelley's (1973) theory of how people make causal attributions. In a review of attribution theory literature, Harvey and Weary (1984) cite evidence suggesting that several researchers have failed to find a significant effect for consensus information; whereas, other researchers suggest that the type of consensus information

available (self-based or sample-based) is important in terms of whether consensus information influences attributions. Major (1980) suggests that when individuals are given the chance to ask for different kinds of information to explain why an event occurred, they tend to ask for consensus information the least. However, consensus information can play a role when a supervisor makes a decision and needs to compare employees (Brown, 1984). Brown suggests that consensus information (making comparisons across people) may be more important in situations where supervisors need to make judgments about the causes of employees' performances. Harvey and Weary (1984) suggest that this implies that consensus information has an influence on attributions, but perhaps not to the same degree as distinctive information or consistency information.

Kelley (1973) contends that there are times when people do not have enough time or information available to them to engage in a complex data analysis in order to make an attribution. He suggests that when an individual lacks the time to make multiple observations, he or she may make a causal inference on the basis of a single observation, and rely upon a "causal schema" to make their attributions. Kelley's causal schemas are made up of "...a general conception that the person has about how certain kinds of causes interact to produce a specific kind of effect" (1973, p. 151). Kelley contends that past experience may provide individuals with

a store of causal relations which they can rely upon to make a decision when confronted with a limited amount of information. Causal schemas cover a broad range of situations, are learned and stored in a person's memory, and can be activated by a variety of cues.

Research (Harvey & Weary, 1984; Kelley & Michela, 1980) suggests that Kelley's causal schema theory has received considerable support in the literature. Reeder and Brewer (cited in Harvey & Weary, 1984) found that different schema are a function of different types of dispositions. They suggest that individuals invoke "implicational" schema when they make certain assumptions about another individual's behavior implied by a given disposition. This suggests that inferences based upon certain dispositions depend upon both the specific schema invoked as well as the situational demands in the situation.

#### Actor-Observer Differences

Jones and Nisbett's actor-observer effect (1972, 1976) suggests that when making causal attributions, there is a tendency for actors to attribute their own actions to situational factors, whereas observers may tend to attribute those same actions to stable personal dispositions of the actor. In a failure condition, actors will attribute their own failure to external factors, and observers will attribute that same failure to internal factors. For success



conditions, actors will attribute their behavior to internal factors, and observers will attribute that same behavior to external factors. Reasons for this difference are a function of the fact that actors and observers differ in terms of: motivation -- the actor has more detailed knowledge of his or her own circumstances, history, motives, and experiences than does the observer; salience of information available to both the actor and observer -- the behavior is seen by the observer to be a manifestation of the actor, whereas the actor views his or her own behavior as a response to the situation; and, visual perspective -- actors tend to see the causes of their own behavior as environmental, whereas observers may locate the causes of the same behavior within the actor (Nisbett & Ross, 1980; Utne & Kidd, 1980).

These actor-observer differences may result in an individual emphasizing environmental factors as the cause of his or her own behavior. However, when he or she acts as an observer, he or she may explain the identical behavior in terms of personal dispositions (Jones & Nisbett, 1976). This results in different attributions for the same behavior. Thus, different attributions for causality may result in different responsibility perspectives leading to differential reward allocations.

Research on actor-observer differences in perceptions of the fairness of a recipient's outcomes are more likely to result from behavior that does not meet normative standards than for behavior

that exceeds them (Nisbett & Ross, 1980). Ross, Green, and House (1977) suggest that behavior that does not meet normative standards (as defined by the observer or the actor) will evoke attributions of personal responsibility from observers. Ross et al. found that many individuals tend to see their own behavior and beliefs as being common and appropriate for normal circumstances, while viewing behavior which they do not engage in as being inappropriate or different from their own normative standards. Ross et al. call this phenomenon the "false consensus effect". This effect may result in actors rejecting the personal responsibility attribution due to a different perspective (either actor-observer differences or due to both actor and observer setting different normative standards), and view subsequent punishment as unfair.

Ross et al.'s research also indicates that an observer views an actors' actions which are different from his or her own to be indicative of the actor's stable characteristics; and, behaviors which are similar are considered to be unstable characteristics of the actor. Specifically, an observer views another's behavior as being reflective of that individual's personal dispositions; whereas, he or she views his or her own behavior as being a function of situational constraints. However, Ross et al.'s research does suggest that the actor-observer difference may be a function of specific personality traits of the person making attributions and placing more emphasis on his or her own behavior, rather than due

to situational forces. In effect, attributors may be displaying misconceptions regarding the degree of consensus surrounding their own behavior and the behavior of others.

Ross et al. contend that the "false consensus effect" leads actors and observers to differing explanations of behavior, and subsequently, different attributions for that behavior both in hypothetical and real-life situations. This implies that an individual's perceptions of what behavior is considered to be normal is directly related to his or her own behavior; and, different attributions of responsibility for a behavior may result in different outcomes.

#### Influence of Attribution Theory on Equity Theory

During the 1970's and up to the present, there has been a great deal of research in the perception of causes for individuals' behavior (Harvey & Weary, 1984; Kelly & Michela, 1980). Since the late 1970's, much of the research on causal attributions has been conducted within the organizational psychology field. Much of this research has focused upon supervisors' ratings of employee performance, and supervisors' attributions regarding the causes of employee performance and the combined effects of performance ratings and causal attributions (Mitchell, Green, & Wood, 1981).

More recently, differences between the perceptions of actors and observers has become an area of great interest in applied attribution theory (Brown, 1984; Harvey & Weary, 1984; Mitchell et al., 1981). In applying the concepts of attribution theory to equity theory, these studies demonstrate that an employer would be more likely to equitably reward an employee whose successful performance is perceived as a function of internal dispositions rather than sources external to the employee.

Brown (1984) suggests that when the actor-observer relationship is viewed in terms of a supervisor-subordinate relationship, a unique relationship exists. First, the subordinate tends to be dependent upon the supervisor. Subsequently, the supervisor expects a certain output from the subordinate and will reward that subordinate when the expectation is fulfilled. Secondly, the supervisor tends to be actively involved in the performance of the actor because he or she may be responsible for certain factors in the environment which are important to the employee's performance. Due to this unique relationship existing between a supervisor and a subordinate, actor-observer differences may be greater in the work setting than in other settings (Brown, 1984).

Potential differences between allocators and the observers of an allocation of a reward are important when the observer is in the position of allocating rewards to a recipient. Allocators and recipients may disagree about the fairness of a particular

distribution of an outcome, and such disagreements may have their roots in differing attributions of responsibility (Leventhal, 1976). When allocators are involved or are beneficiaries of the outcome, they may be more inclined toward personal attributions of both cause and responsibility.

In addition to examining an allocators' attributions for a particular behavior, it is also important to investigate the recipient's attributions of responsibility for the allocation decision. Lawler and Thompson (1978) contend that recipients may react negatively to allocators who unfairly distribute rewards. They found that inequitable treatment of subordinates by leaders with differing levels of responsibility for the inequity affected subordinates' reactions toward the leader. Their research suggests that subordinates tend to react more negatively toward a leader with high responsibility for the inequity as opposed to a leader with low responsibility.

The above findings may be explained by the fact that subjects in the position of leader took 55% of the group's winnings as opposed to the 40% dictated according to the equity criterion. This resulted in less of a reward to the recipients than equity theory would dictate. Subjects in the high responsibility conditions were more likely to contest the distribution of rewards than subjects in the low responsibility conditions. This may be explained, in some sense, by the fact that high responsibility leaders were viewed more

negatively than low responsibility leaders who were given greater endorsement.

Lawler and Thompson's research implies that attributions of responsibility directly affect responses to inequitable and equitable reward allocations. These findings demonstrate that attributions of responsibility concerning both allocators' and recipients' performances will affect subsequent reward allocations, and recipients' perceived fairness and satisfaction regarding the allocation decision.

Kelley's (1973) work in attribution theory may help to explain the process of reward allocation. In a typical reward allocation paradigm, an allocator is given information regarding potential recipients' performances on a task. However, the allocator usually only has access to consensus information (i.e., the performance information of the partners) so that tends to be the information most frequently used. If the allocator has information on two people with differing performance levels, he or she has to determine why the performance levels are different. When performances are different, consensus is low; however, when the performances are similar, consensus is high (Kelley, 1973). According to Kelley (1973), high consensus is necessary for an attribution to be made to the task. However, in most allocation research, the task is the same for the two partners, therefore differences in performance

are likely to be attributed to differences in the individuals (Greenberg, 1978a; Leventhal & Michaels, 1969, 1971).

Reviews of the reward allocation literature (Kahn et al., 1980b; Leventhal, 1976, 1980; Major & Deaux, 1982) and the attribution theory literature (Harvey & Weary, 1984; Kelley & Michela, 1980; Weiner, 1985a, 1985b) suggest that perceptions of distributions of outcomes and evaluative feedback depend upon the perceiver's attributions of cause and responsibility. Lamm and Kayser (1978) found that causal attributions of differential performance, specifically attributions related to personal dispositions, were directly related to perceptions of fairness. They suggest that this relationship is more direct for attributions of effort than of ability. They argue that this may be because effort is seen as an intentional factor which is under more control of the person than is ability; and, therefore, as such may elicit more attributions of personal responsibility than would ability.

#### Self-Serving Biases and Their Influence on Reward Allocations

Snyder, Stephan and Rosenfield (1978) contend that self-serving biases in attribution theory exist in a variety of settings. Self-serving biases exist if a leader attributes successful behavior to internal factors, but makes external attributions for unsuccessful performance. Self-serving biases allow individuals

to maintain or enhance their self-esteem regarding specific dispositions by taking credit for successful outcomes and denying blame for poor outcomes. One can hypothesize how self-serving biases may affect reward allocations. When an allocator is in the role of allocating rewards of which he or she is a potential beneficiary, such as in organizations in which bonuses are distributed among all members in a department, biases may play a role with the allocator tending to favor himself or herself. If an allocator, who is also a recipient of the reward, gives himself or herself more credit for success and less blame for failure than would an observer, this can result in an individual who is unfairly affected by his or her own self-interest (Greenberg, 1978a). The attributional bias could result in observers making judgments that they consider to be objective, but making actors feel as though outcomes are more unfair than others perceive them to be.

Research in attribution theory points to the importance of distinguishing situations in which the allocator is a recipient of the reward (e.g., Callahan-Levy & Messe, 1979; Kahn, Nelson, & Gaeddert, 1980; Kidder, Bellettriere, & Cohn, 1977; Wittig, Marks, & Jones, 1981) from those in which he or she is not (e.g., Austin & McGinn, 1977; Feather & O'Driscoll, 1982; Freedman, 1979; Major, McFarlin, & Gagnon, 1984, Exp. 2; Watts & Messe, 1982). Buss (1978) suggests that in order to understand an individual's perception of what a fair distribution of resources is, one needs to understand



what that person's attributions of cause and responsibility are for the individuals' behavior in the particular situation.

Leventhal (1976) observes that attributions of effort, task difficulty, and ability can affect a person's estimate of what outcomes he or she should receive for inputs. A person with low ability who performs in a similar manner as a person with high ability may be seen as more deserving of higher outcomes. One can infer that the person with low ability must be exerting more effort which should result in a higher reward. Greenberg (1978a) suggests that in many situations, individuals' perceptions of themselves and others tend to influence their perception of the rewards they deserve based on their inputs to an exchange. He cites research suggesting that individuals tend to violate the equity norm by treating similar others more generously and may be willing to decrease their rewards in order to maximize the outcomes of similar others.

Utne & Kidd (1980) suggest that a specific link exists between attribution theory and equity theory. They argue that attributional information can affect the choice of a response as to whether or not equity should be restored and can influence decisions about how to restore equity. They believe that attributions can be instrumental in either strengthening or undermining the basis for ascriptions of responsibility. Specifically, they believe that attributions affect conditions of inequity because of the various meanings that

attributions lead to inequitable situations such as the amount of responsibility or stability that a person contributes to a situation. Whether or not a person is seen to be the cause of an inequitable distribution can play a large part in determining how the inequity should be rectified.

Research supports the above argument and suggests that the cognitive aspects of reward allocation may provide a link between attribution theory and equity theory (Callahan-Levy & Messe, 1979; Cohen, 1974; Reis & Gruzen, 1976; Wittig et al., 1981). There is also support for the fact that attributions may be influenced by an individual's motive to present himself or herself in a favorable light (Fiske & Taylor, 1984; Snyder et al., 1978). One would predict that attributions would affect the manner in which rewards are allocated, such that a bias toward presenting oneself in a favorable light will result in differential reward allocations. If a person with high input is concerned with his or her self presentation and is seeking approval, one would expect this person to give a larger share of the reward to his or her partner. One can hypothesize that individuals would make a different reward allocation if they perceived that their partner had put forth as much effort as possible than if allocators perceived their partners to be lazy. As has been suggested elsewhere, social approval and self-presentational concerns may override concerns of maximizing

one's own outcomes (Lerner, 1977; Miller & Marks, 1982; Shapiro, 1975; Sagan, Pondel, & Wittig, 1981; Von Grumbkow, Deen, Steensma, & Wilke, 1976).

Reis and Gruzen's (1976) research demonstrates that subjects' allocations are correlated with subjects' perceptions of their partner's ability and effort. Their findings suggest that larger ability differences between partners are perceived in conditions where the experimenter is aware of reward allocations and the partners are not. However, they suggest that since allocations were determined before subjects rated their co-workers that the differences in abilities might have been justifications for the allocators' reward allocations. Reis and Gruzen's contention is supported by their results which show that the larger the difference between the best and worst performers, the larger the difference in how much effort was put forth, as well as how much ability the co-workers were perceived to possess. Since all subjects received similar information about their coworkers, Reis and Gruzen concluded that the rating discrepancies were related to justifications to both subjects themselves and to the experimenter concerning the reward allocation decision.

In a study conducted with male dyads, Cohen (1974) demonstrated that attributions influenced reward allocations. Specifically, Cohen suggests that subjects evaluated performance according to the amount of responsibility attributed to a particular behavior and whether or

not the variables enhanced or impaired the behavior. Cohen found that an attribution of effort for a subject's performance resulted in subjects allocating rewards according to equity theory, while an attribution of task difficulty for a subject's performance resulted in rewards being allocated equally. Cohen's study supports research by Leventhal and Michaels (1969, 1971) suggesting that subjects employ information about the context surrounding an individual's performance, and subsequently use this information to attribute causes to inputs and to allocate outcomes.

A shortcoming of Cohen's (1974) study was that he confounded the dimensions of internality-externality and stability-instability, i.e, the attributions of an internal-unstable attribute (effort) with an external-stable attribute (task difficulty). Cohen's hypothesis was that a person's causal attribution concerning the locus of input (effort v. task difficulty) would influence reward allocations when individuals were performing in same-gender dyads. An attribution of effort would result in rewards being allocated according to the norm of equity and an attribution of task difficulty would result in rewards being allocated according to the norm of equality. Cohen's hypothesis was only confirmed when the group reached the low criterion for success. Wittig et al. (1981) argue that because Cohen confounded the stability and locus dimensions of Weiner et al.'s (1971) attribution taxonomy, it

is difficult to determine which of those dimensions accounted for the equitable and equal distributions of the rewards.

Wittig et al. (1981) extended Cohen's study to investigate whether the attributional dimension of locus of causality (internal-external) affected reward allocations in same-gender dyads, i.e. effort v. luck. The primary dependent variable was the amount of money that each subject allocated to himself or herself, with all subjects being the superior performer in the dyad. Their results indicated a main effect for attribution type, such that subjects allocated more money to themselves when their success was a function of effort than of luck. Subjects, whose performance was attributed to luck, allocated rewards according to equality. In addition, there was a higher frequency of allocators in the effort condition who allocated rewards equitably than in the luck condition; but, allocators in the effort condition were more evenly divided between the use of equality and equity. Thus, subjects in the luck condition were less variable in the manner in which they allocated rewards than were subjects in the effort condition.

Wittig et al. suggest that this variability may be a function of a more complex decision-making process on the part of subjects who were in the effort condition. Allocators who are allocating rewards based on effort have to weigh each person's inputs. Further analysis of their results is consistent with this explanation, and suggest that subjects in the effort condition attached greater

importance to the number of correct answers than did subjects in the luck condition.

These studies imply that attributions play a significant role in the allocation of rewards. A limitation to both the Cohen (1974) and Wittig et al. (1981) studies is that they only used same-gender dyads. However, Wittig et al. (1981) found that gender differences in reward allocations were eliminated between same-gender dyads. Allocators whose performances were attributed to luck employed the equality norm to allocate rewards, whereas allocators whose performances were attributed to effort were more evenly divided between the use of the equity norm and the equality norm. An explanation by the authors for this finding was that subjects in the effort condition reported that the number of problems solved was more of a factor in their choice of an allocation norm than did subjects in the luck condition. Attributions also appeared to be mediated by perceived fairness of the allocation. When rating the fairness of their allocations, equity allocators felt that their allocations were less satisfactory to their partners than did equality allocators.

Research (Kahn et al., 1980a; Major & Deaux, 1982) demonstrating that subjects differ in terms of their attributions for certain behaviors as a function of both gender of the subject and gender of their partner suggests the importance of examining both these variables in the same study. In addition, subjects in

both these studies were placed into attribution conditions by the experimenter. Further research needs to be conducted to ascertain the influence of subjects' own attributions for their own and their partner's performances and the effect on reward allocations.

#### CHARACTERISTICS OF THE ALLOCATION RELATIONSHIP

Research suggests that the choice of a distribution rule to allocate resources will be different depending upon whether the allocator is a single individual or a group of individuals (Mikula, 1980; Tindale & Davis, 1985). When a group of individuals is in the position of allocating a resource, they must come to a consensus regarding how that resource will be distributed and to whom. A variety of factors will affect this decision such as the power structure of the group, individual preferences of the group members, and what decision rule will be used to come to an agreement. However, when the decision is made by a single individual, his or her personality and values will influence the decision, such that

"the choice of a principle will follow the allocator's specific repertoire of justice principles and his personal assessment of the suitability of the individual principles for the attainment of the goal aspired to; moreover, his values may make themselves felt in his execution of the chosen allocation rule" (Mikula, 1980, p. 142).

#### Allocator as Recipient versus Nonrecipient in an Allocation Decision

Another factor salient to the allocation decision is whether the allocator is a recipient or a nonrecipient of the resources

which are being distributed. In much of the research, the person who allocates the resources derives some benefit from the exchange. In other cases, the allocator may be a disinterested third party in charge of distributing resources among a group (Adams & Freedman, 1976; Kahn et al., 1980a; Leventhal, 1976; Mikula, 1980).

Mikula (1980) suggests that when an individual is both a distributor and a recipient of an allocation, self-oriented interests and motivations, such as presenting a favorable presentation of oneself, fear of retaliation from other recipients, and preventing conflict within a group, may influence an individual's choice of a distribution rule and the manner in which that distribution rule is applied. If the other recipients in an exchange do not agree with the manner in which the allocator has distributed the resource, the allocator may not receive approval from the other recipients for the decision and may be accused of being biased (Schwinger, 1980). Thus, when an allocator is choosing among distribution rules and is also a beneficiary of the reward, it behooves an allocator to try and present oneself as being impartial and to be able to justify the choice of a distribution rule.

The allocator must be aware that if a distribution principle is chosen which benefits him or her in an obvious manner, the other recipients may accuse the allocator of being unfair. Thus, the issue of self-presentation can influence impartiality in the



allocation decision. Mikula (1980) and Schwinger (1980) cite a number of experimental studies which demonstrate that when an allocator is also a recipient of a resource being distributed, many allocators will deliberately make allocation decisions which are disadvantageous to themselves so as not to appear selfish. For example, allocators in a dyad who make a larger contribution to the group goal than their partner will often choose the equality distribution rule to make themselves appear fair and unselfish. Conversely, allocators who have made smaller contributions than their partners will allocate the reward based on the equity principle. In these two situations, the allocator is deliberately choosing an allocation principle which results in a smaller share of the reward which ultimately may enhance his or her self-presentation. Thus, if the allocator is in a position to benefit from the reward, Mikula (1980) argues that he or she will tend to distribute the reward in a manner which will benefit each member of the group or dyad rather than just benefitting himself or herself.

The research suggests that self-presentational effects have a direct effect upon the choice of an allocation rule. Kahn et al. (1977) demonstrated that the choice of a distribution rule which was viewed as unfair by the recipients had a direct effect on their ratings of the allocator and their subsequent performance and

satisfaction. Kahn et al.'s results suggest that allocators who make allocation decisions which are advantageous to themselves are rated more negatively than those allocators who make decisions that are clearly disadvantageous to themselves. Specifically, their results suggest that recipients tend to favor an allocator who maximizes the recipient's outcomes. They found that allocators who have low inputs and allocate according to the equity principle or allocators who have high inputs and allocate according to the equality principle are seen as more fair and generous than allocators who allocate in the opposite manner. Thus, it appears that liking an allocator is influenced not so much by whether an allocator is equitable, but by whether the subjects can infer from the allocator's behavior that the allocator is generous and unselfish.

The literature suggests that when reward allocations affect the allocator's own outcomes, the manner in which the allocator allocates rewards will affect how that individual is perceived by the other recipients. The above studies point to the large impact that an allocator's self-presentation may have on allocation decisions.

#### Input Levels of Members of the Allocation Relationship

When choosing the manner of distributing a reward, the size of the allocator's contribution to the task, as well as the size

of the other recipients' contributions to the task, will affect the allocation decision. This is supported by research (Leventhal & Lane, 1972; Mikula, 1974; Shapiro, 1975) demonstrating that allocators who contribute less than their co-worker to a task tend to employ the equity principle, whereas allocators who have contributed more choose the equality principle to distribute rewards. An explanation for this finding is that it is more beneficial in terms of self-presentational concerns for an allocator to emphasize his or her co-worker's contributions and to deflate his or her own. This implies that when choosing from among a set of allocation rules, allocators seem to take into account what the consequences of their decision will be.

Mikula (1974) supports the above argument and found that low input performers show a stronger tendency to take individual performances into account than do high input performers. High input performers tend to neglect performance differences and distribute the reward into equal shares. Specifically, subjects with low input performances are more likely to indicate that they have taken their co-worker's performances into account when dividing the reward than are subjects with superior performances. Therefore, it appears that allocations undertaken by subjects who perform worse than their partners can be predicted fairly well by equity theory. On the other hand, high input performing subjects show a strong tendency to divide the reward equally.

Mikula's (1974) findings may be explained by the fact that both high and low performing subjects may have been concerned that all subjects were entitled to a just reward. Low performing subjects may have realized that had they distributed the reward equally, they would be maximizing their own outcomes and receiving more of a reward than that dictated by equity theory. Mikula suggests that individuals who divided the rewards equally may not have viewed performance differences as being as important to the reward allocation as working for the same length of time or putting forth the same amount of effort. By dividing the reward more equally, subjects could try to make both recipients of the reward equally satisfied.

#### Allocation Relationship

In addition to input levels of the allocator and the recipients, experimental evidence suggests that the manner in which the allocator perceives the other recipients of the reward will influence the allocation decision and whether it is considered fair. Research suggests that when a positive relationship (i.e., cooperation between partners or friendship) is created between co-workers in an allocation situation, both high and low contributors to the task tend to allocate significantly less of a reward to themselves (Austin, 1980).

Austin's (1980) study involved having college roommates and strangers (differing in terms of high versus low input) allocate money between themselves and their co-worker on the basis of their score on a word puzzle task. His results indicated that regardless of input level, roommates tended to use the equality norm to allocate rewards, whereas, strangers chose the equity norm which resulted in maximizing their own rewards. Friends considered an allocation decision to be more fair when an equality norm was used over an equity norm. Strangers considered an allocation decision to be more fair when an equity distribution norm was used to distribute the reward.

Lerner and his colleagues (Lerner, 1977; Lerner, Miller, & Holmes, 1976) and Deutsch (1975) suggest that the nature of the relationship between partners influences which allocation rule (equity or equality) an allocator will choose. Specifically, these researchers suggest that an individual's reward allocation to another person is influenced by whether the allocator views the recipient as a unique person or as a member of a position or role. Lerner (1977) contends that perceiving the recipient as occupying a role or a position means that the allocator has no personal relationship with the recipient, and that the recipient is just one of many occupants of that position. However, when one views the recipient as an actual person, the allocator's behavior tends

to be directed towards the person rather than the occupant of the role. When co-workers relate to each other on the basis of their functions in the relationship (e.g., partners) rather than as individuals, the equality rule tends to prevail. When an allocator has no personal relationship with the recipient, the equity rule tends to prevail.

Lerner and his colleagues' research is supported by studies by Carles and Carver (1979) and Leung and Park (1986). These researchers found that when co-workers had a personal relationship, allocators divided the reward equally between them, but when the relationship was positional or role oriented, allocators adhered to the equity principle. Leung and Park (1986) manipulated the allocation of rewards in a scenario of either an organizational or a neighborhood situation. Their results indicated that subjects tended to perceive an equity rule as being more fair in the organizational setting. The equality rule was perceived to be more fair in the neighborhood situation than in the organizational situation. Furthermore, the situational context affected the size of the reward which was given to the highest performer. Subjects allocated a larger share of the reward to the high input performer in the organization than to the high input performer in the neighborhood context.

### Expectation of Future Interaction

Earlier studies in which equity was used as the distribution rule tended to have little or no interaction between allocators and recipients (i.e., Leventhal & Lane, 1970; Mikula, 1974). Many of these studies utilized a paradigm in which subjects who made allocations were told about a "fictitious" partner who was working on the same task, but was being tested by another experimenter in another room. In studies in which subjects were told they could expect to interact with the recipients of their allocation decisions in the future (Leung & Park, 1986; Shapiro, 1975) or were part of a total group (Leung & Park, 1986; Mikula, 1974), equal distributions tended to be made. In these situations, subjects seem to be concerned with the image they are projecting to other people, especially the recipient (Reis & Gruzen, 1976; Shapiro, 1975). Shapiro (1975) suggests that in situations in which there is an expectation of the allocator interacting with recipients of the allocation in the future, subjects will allocate rewards in such a manner that will lead to the approval of the allocator by the other recipients of the reward and preventing conflict.

Shapiro (1975) directly compared allocation decisions in situations with or without the expectation of future contact between the allocator and the recipient. Shapiro found that the expectation of future interaction only had an effect for high input subjects: high input subjects who did not expect future interaction allocated

the reward according to the equity principle; whereas, high input subjects who were expecting future interaction with the recipients allocated according to the equality principle. Shapiro also found that high input subjects took more money when they were not expecting future interaction than when they were expecting future interaction. Allocators with low input contributions chose the equity principle regardless of whether they expected future interaction or not.

Shapiro suggests that high input subjects who expected to interact in the future with the recipients of their allocation decision used the equality norm because they were more concerned with presenting themselves in a favorable light than increasing the amount of their share of the reward. This was substantiated by Shapiro's results indicating that high input subjects who took less than an equitable share of the reward believed their co-worker would be more satisfied which would result in a more positive evaluation of the allocator. The only effect for low input subjects was that they believed that if they took more of the reward than was equitable, their co-workers would be less satisfied and view them as lacking in sincerity.

In Shapiro's study, subjects never actually met one another and the amount of future interaction that subjects would be expecting to have with their partner would be brief. One can assume that when the consequences of interacting with a partner are larger (i.e.,



actual interaction as opposed to inferring the interaction), there may be an even bigger trend toward the use of the equality principle if subjects are concerned with their self-presentation. However, Shapiro suggests that as the amount of the reward to be divided becomes substantial, subjects might be more prone to weigh the costs and benefits of giving up a sizeable chunk of the reward in order to emit a favorable self-presentation.

Greenberg (1978b) manipulated the value of the reward to be divided as well as the allocator's opportunity to engage in future interaction with a recipient. His results indicated that when subjects did not expect any future interaction with their co-workers and the value of the resource was high, they took more than an equitable share of the reward. When the value of the resource was low, subjects allocated equally regardless of the possibility of future interaction. Greenberg's findings also indicated that the perceived power level of the recipient had an effect on anticipated future interaction. Subjects adhered to the equity norm when they expected to interact in the future with an equally powerful co-worker. However, subjects took more than their fair share when they perceived that their co-workers had less power than themselves.

In a study using male dyads, Von Grumbkow et al. (1976) also found that possible future interactions between the allocator and his co-workers would affect the allocation decision. In their

study, allocators who expected a future interaction with a recipient distributed outcomes equally. Allocators who did not expect to interact with the recipient in the future, allocated rewards according to the equity norm. Allocators allocating equally may have done so to try to make both workers equally satisfied and to make the future interaction as pleasant and devoid of conflict as possible.

The above studies suggest that when subjects expect to interact with the recipients of their allocation decision, they choose a distribution rule which tends to maximize their co-worker's outcomes at the expense of their own. However, when future interaction with the recipient of an allocation decision is not expected, subjects tend to maximize their own outcomes. These studies suggest that when subjects anticipate some future interaction with the recipients of their allocation decision, they will choose a distribution rule which will make the recipients of the allocation as satisfied as possible and strive to make the expected future interaction as pleasant as possible.

#### Public versus Private Allocations

Studies (Lawler, 1971; Leventhal, Popp, & Sawyer, 1973; Milkowitch & Anderson, 1972) concerning the concept of disclosure of reward allocations have strong implications for organizations

and support the use of secrecy surrounding many salary decisions. Leventhal et al. (1973) suggest that an allocator's expectation of future interaction with the recipient of his or her allocation decision is also influenced by whether the allocation is made in private or in public. They contend that most individuals prefer to maintain secrecy regarding the reward allocations they have made. Consequently, when subjects have to make reward allocations in public, there tends to be a smaller difference between the allocator's share of the reward and that of the recipient's than there would be if the reward were made in private.

Lawler (1971) and Milkowitch and Anderson (1972) contend that individuals who control the allocation of pay in organizations want to maintain secrecy because they hope to minimize dissatisfaction and conflict and protect their own authority and status. Lawler (1971) suggests that secrecy may help to minimize any disruption leading to decreased productivity and loyalty within the organization. Research suggests that reward allocations differ depending upon whether the allocation is made in private or public (Leventhal et al., 1972; Morse, Reis, & Gruzen, 1976; Reis & Gruzen, 1976). Specifically, these studies suggest that allocations may be a function of allocators' self-presentational concerns and an attempt to elicit social approval from both their co-workers and the experimenters.

Reis and Gruzen (1976) suggest that an allocator's desire to present oneself in a favorable manner is a factor in allocation decisions. Reis and Gruzen manipulated the variable of disclosure of a person's allocation decision. Subjects who were told that their allocation decision would only be known to the experimenter adhered most closely to the equity rule. The equality principle was used in conditions in which the allocator's partners would be informed as to the distribution of rewards. Only when allocations were totally secret did subjects allocate more money to themselves.

Reis and Gruzen contend that allocators may use an equality allocation norm as an approval-seeking strategy when others are aware of the allocator's behavior; and, allocators will use the equity norm to maximize their own rewards when allocations are made in private. Reis and Gruzen suggest that allocations made in public tend to elicit self-presentational concerns which need to be protected and will vary from allocations made in private.

Reis and Gruzen's results suggest that allocations are influenced by whether or not distributions are communicated to others, and that conformity to a particular distribution norm can be understood within a self-presentational framework. When either the co-worker or the experimenter is aware of the allocator's distributions, the allocator may feel that others' impressions will become a source of approval or disapproval. Thus, the results suggest that reward allocations in an exchange which focuses on

productivity are characterized by the equity norm. The equality norm will predominate in an exchange in which subjects are more concerned with their self-presentation. When one is involved in a relationship where equality is predominant and co-workers have inputs which are unequal, a conflict arises. Reis and Gruzen contend that this conflict is resolved as a function of who is aware of the distribution of rewards.

Leventhal et al. (1972) also explored the relationship between secrecy and reward allocations. In their experiment, subjects made allocations under a condition where no information about the amount of the distribution was made available to recipients, or under the condition where all group members would be aware of the amount of the allocation. Leventhal et al. demonstrated that when rewards were allocated in private, allocators tended to place more emphasis on an individual's inputs and divided the reward in proportion to all the individuals' performances. The equality norm was used when subjects understood that rewards were to be made in public. Their results suggested that secrecy affected the amount of a reward, i.e., the difference between rewards of the best and worst performers was greater under conditions of secrecy than under full disclosure. The allocator's motivation to withhold information about reward allocations tended to be influenced by the recipients' performance and their share of the reward. The authors suggest that an allocator is more motivated to maintain secrecy regarding

a reward allocation for recipients who are most likely to feel dissatisfied and create conflict. This, in turn, affects an allocator's distribution of rewards to both the best and worst performers.

The research cited above has implications for equity theory and, perhaps more importantly, for those individuals who are in the position of allocating rewards. The allocation of rewards appears to be mediated by a variety of factors such as approval-seeking considerations and awareness of the reward allocations by relevant others. When material, social (impression formation), and psychological (self-presentation) rewards are taken into consideration, subjects tend to make reward allocations which are most favorable to them (Reis & Gruzen, 1976), as well as to other recipients. Allocators who allocate less to themselves and more to their co-workers may actually be receiving more of a psychological reward in terms of social approval.

#### Use of Allocation Norms to Prevent Conflict

Leventhal and his colleagues (Leventhal, 1976; Leventhal & Michaels, 1969, 1971; Leventhal et al., 1972; Leventhal & Whiteside, 1973) suggest that allocators may be reluctant to give a low reward to some recipients because it may arouse negative reactions in the recipients. These studies indicate that an allocator's concern about preventing such negative reactions influence an allocator's

distribution of the reward. Thus, it is the beliefs which an allocator has about the effect of giving low rewards that may determine his or her allocation distribution.

Leventhal et al. (1972) investigated the effects of an allocator's desire to prevent interpersonal conflict which has been cited as a reason for some allocator's choice of the equality norm over the equity norm. Leventhal et al. made the assumption that the distribution of rewards among co-workers could arouse feelings of dissatisfaction and conflict in some recipients causing them to behave antagonistically toward the allocator. Research (Greenberg, 1978; Lawler, 1968; 1971; Leventhal et al., 1972) suggests that a variety of strategies are available to allocators to prevent conflict over the distribution of a reward such as: 1) allocators forming contractual agreements with recipients to prevent conflict; 2) allocators increasing the rewards of those recipients they feel most likely will be dissatisfied; or, 3) allocators keeping recipients ignorant of the manner in which he or she has distributed the reward.

Leventhal et al. (1972) found that allocators tended to maintain equity on the first distribution of a reward; but when allowed to redistribute the reward, the second distribution was strongly influenced by their desire to prevent conflict. Subjects tended to increase the rewards of the worst performer at the best performer's expense. Furthermore, allocators seemed to believe that

poor performers posed a greater threat to the workings of the group. However, it is important to note that in the second distribution, subjects still gave higher rewards to the best performers than the worst performers.

A variety of factors may have influenced Leventhal et al.'s findings. If a person is leaving a group, the allocator may be willing to put up with a little disharmony until the person leaves the group. If the allocator wants a person to leave the group, a smaller reward than the person expects is a good strategy to increase dissatisfaction and induce the poor performer to leave. However, if an allocator wants a person to remain in a group, this might influence his or her desire to minimize feelings of dissatisfaction leading to conflict and make future interactions as pleasant as possible for the allocator and other group members.

Greenberg (1978b) suggests that allocators tend to treat recipients generously when they are concerned about the welfare of less powerful recipients. Even if the allocator believes that the superiority of his or her own contributions should warrant a greater portion of the reward, his or her concern for others' welfare, bolstered by the fear of retaliation for not acting generously, can result in allocators donating a larger share of the reward to less powerful coworkers. Leventhal (1976) supports Greenberg's arguments, and suggests that allocators whose recipients are dependent upon them for rewards are motivated to sacrifice their



personal gain for the sake of others. This extends previous research demonstrating the avoidance of self-interested allocation responses among subjects not expecting future interactions with co-workers and the opposite for subjects expecting future interaction (Shapiro, 1975).

#### INFLUENCE OF GENDER ON REWARD ALLOCATIONS

Research on reward allocations has consistently found differences in the manner in which men and women allocate rewards between themselves and others (Kahn et al., 1980b; Major & Adams, 1983; Major & Deaux, 1982). Overall, the research suggests that when asked to divide a reward between themselves and a co-worker, men tend to use the equity norm to allocate rewards; whereas, women tend to use the equality norm to allocate rewards. However, a number of studies have been conducted which demonstrate that a variety of factors mediate the gender of allocator effects, such as input level of the allocator and recipient, situational factors, expectancy of future interaction, and public versus private allocations (Austin & McGinn, 1977; Kahn et al., 1977; Kahn et al., 1980b; Kidder et al., 1977; Reis & Jackson, 1981).

In the paradigm in which allocators are potential beneficiaries of the reward and their performance levels are less than their co-workers, both men and women tend to divide rewards using an equity distribution. Women, on the other hand, tend to allocate

less of the reward to themselves than would be proscribed by equity theory and less than men do (Callahan-Levy & Messe, 1979; Leventhal & Lane, 1970; Mikula, 1974; Watts, Messe, & Vallacher, 1982).

Callahan-Levy & Messe (1979) found that even if the performance levels are similar for allocators and their co-workers, women will still allocate less of a reward to themselves than will men. This finding appears to be obtained regardless of the gender of the co-worker (Reis & Jackson, 1981).

A number of explanations exist for why gender differences in reward allocations exist. In a review of the literature, Kahn et al. (1980b) and Major & Deaux (1982) suggest that there are three possible explanations for these findings: 1) gender differences in interpersonal orientations of the allocators (Kahn et al., 1980a); 2) different sex role norms are elicited as a result of self-presentational concerns (Kidder et al., 1977); and 3) gender differences in subjective evaluations of and/or attributions for performance (Wittig et al., 1981).

### Theories/Explanations For Gender Differences

Interpersonal orientation. The interpersonal orientation explanation which is given for observed gender differences in allocation decisions is that women, due to their socialization, are generally more concerned with the interpersonal harmony and

satisfaction of the group (Hottes & Kahn, 1974; Kahn et al., 1980a; Major & Deaux, 1982; Watts & Messe, 1982; Watts et al., 1982).

This results in women more often using allocation principles which are advantageous to their co-workers. Women tend to be more accommodating and socially oriented to maximize their outcomes which are tangentially related to the goal of achieving a pleasant social situation (Hottes & Kahn, 1974). Subsequently, they tend to employ the equality principle when their contribution is larger than that of their co-worker and the equity principle when their contribution is smaller. Thus, Deutsch (1975) contends that women tend to employ the equality principle because it reinforces maintaining interpersonal harmony within a group.

Men, on the other hand, due to their socialization experience which emphasizes achievement and competition, place a greater emphasis on the size of their share of the reward and tend to select an allocation principle which strives to achieve their goal of maximizing their outcomes (Hottes & Kahn, 1974; Kahn et al., 1980a; Watts et al., 1982). Use of the equity principle by men, such as linking outcomes directly with performance, promotes the competitive spirit of men (Kahn et al., 1980b).

According to Major and Adams (1983), only one study (Watts et al., 1982) has directly tested the interpersonal explanation of gender differences in equity theory. Watts et al. obtained measures of interpersonal orientation as measured by the Interpersonal

Orientation Scale (IO) (Swap & Rubin, cited in Major & Adams, 1983). A high score on the IO scale indicates a person who is responsive to the interpersonal aspects of relationships (communal). A low score indicates a person who is more interested in maximizing his or her own gains regardless of the interpersonal aspects of the relationship (agentic). Their findings indicated that agentic subjects allocated more money to themselves than did communal subjects; men were found to be more agentic and women were more communal; and women tended to allocate a smaller percentage of the reward to themselves. Thus, their study suggests that one reason for gender differences in reward allocation may be due to the fact that since women typically are less agentic than men, and since agentic people tend to be more concerned with equitable distributions of rewards, women are more prone to use the equality norm to allocate rewards.

Self-presentational orientation. Another explanation for the existence of gender differences in allocation research can be explained from a self-presentational framework (Kidder et al., 1977). Kidder et al. suggest that different norms or role explanations exist for how men and women should allocate rewards; specifically, women are expected to be generous and men are expected to be equitable. Reis and Gruzen (1976) and Shapiro (1975) demonstrated that reward allocations are influenced by

self-presentational concerns, however a limitation to these studies was the use of only male dyads. In both these studies, men made more equal allocations when self-presentational concerns were salient such as public disclosure of the reward allocation and anticipation of interacting with their co-worker in the future. However, according to Major and Adams (1983) these studies confounded the variables of anticipation of future interaction and public versus private disclosure.

Kidder et al. (1977) extended these studies and manipulated self-presentational concerns in terms of disclosure of the allocation (public versus private disclosure) in both men's and women's reward allocations. Subjects in the private condition believed that their allocations would be totally private and that they would not interact with their co-worker. Subjects in the public condition expected to meet with both the experimenter and their co-worker. Their results suggest that when anticipating disclosure of their allocations, subjects adhere to traditional norms with men dividing rewards equitably and women dividing rewards equally between themselves and a low input co-worker. When allocations are made in private the opposite results are found: men allocate rewards equally and women allocate rewards equitably. The authors suggest that self-presentational concerns will result in men and women allocating rewards differently when they do not have to adhere traditional sex role expectations.

Kidder et al. suggest that a limitation to their study may be the ambiguity of their public versus private manipulation. Subjects were told in the public condition that their reward allocations would be made known to both the experimenter and their co-worker. Therefore, Kidder et al. question whether disclosure to the experimenter or to their co-worker influenced the subject's allocations in the public conditions. However, Kidder et al.'s study certainly points to the importance of situational factors on gender differences in allocation behavior. One would expect that situational factors that reduce sex-linked role expectations should attenuate gender differences in allocations.

Cognitive orientation. The third explanation for gender differences in reward allocations is a cognitively oriented explanation. Major and Deaux (1982) and Wittig et al. (1981) argue that gender differences arise due to differences in how men and women evaluate their performances and the attributions for their performance. Men and women have been found to differ in the attributions that they make for their own performances and that of others' (Deaux, 1976). Women tend to attribute their successes to external causes and their failures to internal causes, while men tend to attribute their successes to internal causes and their failures to external causes (Deaux & Farris, 1977; Feather & Simon, 1975). As a result of these attributions, evidence suggests that women pay themselves less than men do when allocating rewards (Kahn

et al., 1980b; Lane & Messe, 1971; Leventhal & Lane, 1970; Major & Deaux, 1982) and to themselves alone (Callahan-Levy & Messe, 1979); women feel they deserve less pay for their work than do men, and evaluate their work performance less positively than do men (Major & Forcey, 1985); relative to men, women perceive that money is less salient for their work (Chesler & Goodman, 1976); and women tend to place a lower evaluation on the quality of their work than do men (Lenney, 1977; Major & Forcey, 1985). Furthermore, the research suggests that subjects tend to allocate more money to women than to men; in other words, allocators tend to be "kinder" to women when allocating a reward than to men (Callahan-Levy & Messe, 1979). Thus, since equitable distributions are seen to be applicable when inputs are due to internal causes (Leventhal & Michaels, 1969, 1971), an explanation for gender differences in allocation research may be explained by attribution theory.

In a study of mixed-gender and same-gender triads, Kahn et al. (1980a, Study 1) asked medium-input allocators to rate how hard each member of their group had worked and the ability of each member to perform the task. Their results suggest that attributions affected how allocators perceived other group members. Subjects perceived that greater effort was exerted when low-input and high-input members of the group were men. In addition, women allocators perceived that the group worked harder when the other members of the group were men, and perceived that the group worked less when the

other members of the group were women. In addition, attributions interacted with gender of co-worker to affect how much effort a subject exerted. When the high-input member was a man, all subjects perceived themselves and the low-input member as exerting more effort to perform the task than when the high-input member was a woman. According to Kahn et al. (1980a), gender composition of a group affects attributions of effort, but not ability in reward allocations. The presence of a man in a group tends to lead subjects to make greater attributions of effort which the authors suggest may mediate a decision to equitably allocate rewards.

Research (Kahn, 1972; Kahn et al., 1980a; Walster & Walster, 1975) suggests that since men and women may differ in their motivational goals (men favor competitive and exploitative success, while women favor social and interpersonal success), this may result in subjects focusing on competition in the presence of a man and focusing on cooperation and generosity in the presence of a woman. Kahn et al. (1980a) observe that "... equity with its focus on differences, is presumed to reinforce competitive success; whereas, equality, with its focus on lack of distinctions, is presumed to reinforce interpersonal harmony and communication ease" (pp. 737-738).

Walster and Walster (1975) also suggest that attributions of ability and effort are important inputs to an exchange when subjects are competing with each other for rewards. One would hypothesize



that if subjects consider effort and ability as relevant inputs to an exchange and they vary within each individual, rewards should be allocated equitably; and similarly, if participation is an important input, rewards should be allocated equally (Kahn et al., 1980a; Walster & Walster, 1975). One would also hypothesize that if women were encouraged to excel and be competitive, they also might be more apt to allocate rewards equitably to maximize their own outcomes.

Thus, since the research suggests that gender differences in subjects' attributions differ as a function of the gender of the co-worker (Deaux, 1976; Heilman & Kram, 1978), and the gender composition of the group can influence attributions (Kahn et al., 1980a), an extension to both the Kahn et al. (1980a) and Wittig et al. (1981) studies might be to employ mixed-gender and same-gender dyads as well as examining how subjects' attributions for their own and their co-worker's performances affect reward allocations.

Finally, it appears that studies in which the experimenter supplies attributions regarding subjects' performances affects gender differences in reward allocations (Greenberg, 1978; Wittig et al., 1981); but, no gender differences occur when subjects supply their own attributions for their performances (Kahn et al., 1980; Reis & Jackson, 1981). However, no study to date has explored the aspect of whether gender differences may occur in reward allocations when subjects provide attributions for their own, as well as their co-workers', performances.

### Paradigms in Reward Allocation Literature

According to Major & Deaux (1982), there are four distinct paradigms within the area of reward allocations which can be identified. The first paradigm is allocations to others only in which the focus is on an individual's allocation of rewards to individuals who have differential performance inputs. The allocator does not share in the reward. The second paradigm is allocations to self and others in which the allocator is a co-recipient of the allocation and the reward is contingent upon the allocator and his or her co-worker's performance on a task. The third paradigm is allocation to self only where after performing a task, an individual allocates rewards only to himself or herself. One of them is designated as the superior performer and the other as the inferior performer. The fourth paradigm is group allocations to self and others in which a group works on a task and the group decides amongst themselves on how to allocate the reward.

Both Kahn et al. (1980b) and Major & Deaux (1982) suggest that research on gender differences in reward allocations vary markedly depending upon which research paradigm in allocation behavior is being used. Due to the nature of the present study, research corresponding to only the first two paradigms will be discussed.

Allocations to others only. The focus in this paradigm is on an individual's allocation of rewards to individuals who have differential performance inputs with the allocator not

sharing in the reward. Few gender differences have been found in this paradigm. However, Leventhal et al. (1973) and Baker (1974) found that when gender differences did occur, men and women still allocated rewards equitably, but women minimized the difference between high and low performers, while men maximized the difference. Men gave higher rewards to high performers than did women, and women gave higher rewards to low performers than did men.

Furthermore, men and women allocated rewards differently depending upon whether they would interact with the recipients of the allocation in the future and the gender of the recipient. Evidence suggests that when individuals do not expect to interact with recipients of their allocations, both men and women allocate rewards equitably with high input performers receiving a higher reward than low input performers (Callahan-Levy & Messe, 1979; Leventhal et al., 1972; Leventhal et al., 1973; Leventhal & Whiteside, 1973). When men and women expect to interact with the recipients, they chose a distribution norm which maximizes their co-workers' outcomes. For example, subjects would use an equitable distribution when allocating a reward to a high input performer and an equal distribution when allocating to a low input performer (Austin & McGinn, 1977; Major & Adams, 1984). Thus, gender differences emerge when allocators anticipate interacting with co-workers.

Austin and McGinn (1977) demonstrated that when subjects were unsure as to whether they would interact with same-gender co-workers, men allocated rewards equitably, and women tended to allocate with a compromise between equity and equality. The researchers suggested that women tended to use an equity distribution only in specific situations (i.e., possible future interaction with the recipient of the allocation). Otherwise, women chose a compromise between equity and equality. Furthermore, men and women differed in terms of their motives for their reward allocations when they anticipated future interaction with a co-worker. Men tended to report a greater sensitivity to interpersonal costs such as avoiding conflict; whereas, women indicated a greater responsiveness to interpersonal rewards such as promoting cooperation and being friendly with their co-worker.

Allocations to self and others. In this paradigm, the allocator is a co-recipient of the allocation, and the reward is contingent upon the pooled performance of both the allocator and his or her co-worker's performance when working separately on the same task. Subjects are given false feedback that one of them is the superior performer and the other is the inferior performer. In this paradigm, self-presentational effects play a larger role since the allocator is also a co-recipient of the reward and tend to mediate gender differences within reward allocations (Kahn et al., 1980b).

Input levels of both the allocator and co-workers tend to affect gender differences in reward allocations. Kahn et al. (1980a) suggest that regardless of input level, women tend to allocate less of the reward to themselves than do men. When women allocators have superior performance to that of their co-workers, women allocate equally; however, when they have inferior performance, they allocate equitably. Conversely, men appear to allocate equitably in both superior and inferior performance conditions (Leventhal & Lane, 1970). Leventhal (1973, as cited in Walster and Walster, 1975) suggests that, in general, both men and women want to allocate rewards equitably. However, Leventhal argues that different goals, agendas, or motivations result in subjects sacrificing equity to allocate rewards. Specifically, Leventhal contends, "... for a man, succeeding at a challenging task is an important alternative goal; for a woman, succeeding at affiliation goals is important" (p. 27). This suggests that a woman who performs superior to her co-worker will divide the reward equally, because she feels that maintaining a friendly relationship is more important to her than receiving an equitable share of the reward. Conversely, when a woman's performance is inferior to her co-worker, she will divide the reward in such a way that it results in reducing her own share of the reward (Leventhal, 1973, cited in Walster & Walster, 1975).

Research suggests that a number of factors may mediate the gender differences presently existing within the reward allocation literature, such as gender of the co-worker (Austin & McGinn, 1977; Callahan-Levy & Messe, 1979; Evensen, 1987); disclosure of the allocation: public versus private allocations (Kernis & Reis, 1980; Kidder et al., 1977; Leventhal et al., 1972; Prator & Greenberg, 1979); future interaction with a co-worker (Evensen, 1987; Major & Adams, 1984; Sagan et al., 1981); situational factors (Greenberg, 1978a; Leung & Park, 1986; Watts & Messe, 1982); and the type of reward being allocated (Callahan-Levy & Messe, 1979; Evensen, 1987; Major & Adams, 1984).

#### Gender Differences and Gender of the Co-Worker

A number of studies suggest that gender differences in reward allocation may be mediated by the gender of the co-worker (Austin & McGinn, 1977; Callahan-Levy & Messe, 1979; Evensen, 1987; Kahn et al., 1977, 1980a, 1980b; Kidder et al., 1977; Major & Adams, 1984; Major & Deaux, 1982; Reis & Jackson, 1981). The topic of allocators and gender of co-workers in reward allocations is confounded by the fact that the majority of studies have only used same-gender groups or dyads (Kahn et al., 1980b; Major & Deaux, 1982). Only a few studies have specifically manipulated gender of co-worker along with gender of allocator (Callahan-Levy & Messe, 1979; Evensen, 1987;

Kahn et al., 1980; Major & Adams, 1984; Reis & Jackson, 1981; Sagan et al., 1981; Wittig et al., 1981).

There is evidence to suggest that the gender of the co-worker effects can sometimes override gender differences thought to be due to gender of the allocator. The evidence suggests that female co-workers are treated differently, in terms of allocations, than male co-workers by both men and women (Callahan-Levy & Messe, 1979); both men and women allocate equitably with same-gender co-workers and equally with opposite-gender co-workers (Major & Adams, 1984); and men and women keep more of the reward when paired with same-gender co-workers than with opposite-gender co-workers (Reis & Jackson, 1981, Exp. 1).

Kahn et al. (1980a, Exp. 1) conducted an experiment in which subjects divided a reward in either same-gender or mixed-gender groups. The allocators were medium performers and their co-workers were high performers and low performers. Their results suggested that the gender of the co-worker affected the allocator's choice of distribution norm, but was mediated by the gender composition of the group. Specifically, when the low performer was a male, men tended to allocate more equitably. When the low performer was a female, both men and women allocated more equally than equitably. Kahn et al.'s results also indicate that the performance (input) level of the co-worker interacted with the gender of the co-worker. Men's allocations indicated a larger difference between high and low

performers when the low performer was a male than a female. The authors suggest that men react more strongly to the gender of the recipient of their allocation because the "norm of male chivalry toward 'helpless' women becomes salient to male but not female subjects" (Kahn et al., 1980a, Exp. 1, p. 741).

Kahn et al.'s findings may be understood in light of Taynor and Deaux's (1973, 1975) work demonstrating that the gender of the comparison person has an impact upon the allocator's perceptions of the comparison person's inputs which influence reward allocation. Taynor and Deaux (1973) extended the equity theory model to the area of perceived gender differences and suggested that if being a female is assumed to be a constraint on performance; then, for comparable performance in a similar situation, a female should be rated as more deserving of a reward than a male.

Under the assumptions of equity theory, one or more of the input variables would have to be inflated in order to balance out the increased outcome, namely the deservingness of the reward. Since a direct linear relationship exists between performance and assigned rewards (Lawler, 1971; Weiner & Kukla, 1970), Taynor and Deaux predicted that if a female was perceived as being more deserving of a reward, then this should be accompanied by an increase in the evaluation of her performance.

Taynor and Deaux's data supported their prediction. They demonstrated that a female (acting under the nonvoluntary constraint



of being a female) was perceived as being more deserving of a reward than an equally performing male. They base this assumption on a study by Leventhal and Michaels (1971) whose results suggest that when a participant in an exchange has constraints upon his or her inputs to an exchange, the reward is altered. Subjects rated individuals who were operating under involuntary constraints (such as a person's height) to be more deserving of a reward than individuals not operating under a nonvoluntary constraint (such as effort). Leventhal and Michaels suggest that allocators tend to give relatively high rewards to recipients working under high involuntary constraints. Subjects in their study displayed an overall tendency to give a higher reward to recipients with a lower aptitude when the performance level was held constant.

Kidder et al. (1977, Exp. 2 and 3) found results counter to most gender of co-worker findings. However, their findings were mediated by the disclosure of the reward allocation variable. In Study 2, in which men and women allocated rewards to a female partner, men gave much more to themselves than to their partner in the public condition, whereas women gave more to themselves than their partner in the private condition. Overall, men allocated equitably in public and equally in private, and women showed the opposite effects. In Study 3 in which subjects allocated rewards to same-gender partners, they found a similar pattern of results with men and women reversing their allocation patterns in public and

private. Kidder et al. suggest that it appears that it does not make much difference whether co-workers are women or of the same-gender as the allocator in terms of reward allocations. Unfortunately, Kidder et al. did not test how a woman would allocate rewards with a male co-worker. One can hypothesize that in public a woman may be reluctant to compete with a man, but that in private she may demonstrate similar findings to those in the Kidder et al. studies.

Callahan-Levy & Messe (1979) also examined mixed-gender as well as same-gender dyads. They found that both men and women allocators tended to allocate more of a reward to female co-workers than they did to males. The authors suggested that this differential pay between male and female co-workers may be due to differential expectations that allocators held regarding the co-workers' performances. They also found that the difference between what allocators actually paid co-workers was greater than what allocators said was fair payment for performance by males and females. In addition, allocators evaluated the expected performance of female co-workers more favorably than they did males. Thus, it appears that both men and women allocators were being overly generous to women co-workers.

An interesting finding in the Callahan-Levy & Messe (1979) was that women tended to pay themselves less than men paid themselves, and less than what subjects allocated to female

co-workers. Callahan-Levy and Messe explain this finding by the fact that women are more apt to apply a standard of fair pay to another's performance than they are to their own. They suggest that the fact that women pay themselves less than men appears to be due to a woman's weaker sense of her own worth.

Similar gender differences have also been reported in the literature by Messe & Callahan-Levy (1979) and Gruder and Cook (1971) who indicated that both men and women tend to be kinder to women when they allocate a reward between themselves and another person. However, in the Messe & Callahan-Levy (1979) study, women's allocations were not influenced by the gender of their co-worker, whereas men varied their allocations dramatically depending upon the gender of their co-worker. Men who were superior performers showed a tendency to be more generous with their female co-workers than with males, such that men allocated more equally when allocating to a female rather than to a male.

Major and Adams (1984) manipulated both gender of the allocator and gender of the co-worker and found that gender differences in reward allocations were mediated by the variables of future interaction and the type of reward allocated. Their results indicated that when subjects make joint allocations (e.g., divide \$50.00 among themselves and their co-workers), only allocators who anticipated future interaction with their co-workers divided rewards equitably with a same-gender co-worker and more equally with an

opposite-gender co-worker. Gender of allocator differences were only found when subjects made independent reward allocations (e.g., allocate up to \$50.00 to each co-worker). In other words, when making independent allocations, women tended to divide rewards more equitably than men did, and men tended to give more of a reward to their co-workers than did women.

Major and Adams' findings support the Kidder et al. (1977) study and partially supported the Evensen (1987) study in which opposite effects were found with the future interaction variable. However, the Major and Adams' study does not support the majority of gender differences in allocation research (Kahn et al., 1980b; Major & Deaux, 1982). Overall, it appears that subjects tend to divide rewards more equally when making a joint reward than when making an independent reward allocation.

In a replication of the Major and Adams' (1984) study, Evensen (1987) also found that the expectation of future interaction with co-workers and the type of allocation affected the allocations of both men and women. When subjects who made joint allocations did not anticipate future interaction with their co-workers, both men and women allocated more equitably with a same-gender co-worker and more equally with an opposite-gender co-worker. In addition, contrary to Major and Adams' study, men allocated more equally if they expected to interact in the future with a same-gender co-worker and more equitably when future interaction was not expected.

Inspection of subjects' separate allocations to themselves and their co-worker in a joint allocation condition indicated that subjects allocated more of a reward to themselves when they did not expect future interaction with their co-workers than when they did expect future interaction. In addition, when the co-worker was a female, men allocated more of a reward to themselves than did women.

Evensen's (1987) study supports Major and Adams' (1984) study when subjects make independent reward allocations with a strong tendency for women to allocate rewards more equitably than men. However, there was a slight trend for gender of co-worker to affect men and women's independent reward allocations. Evensen's results suggest that when allocating to a female co-worker, women allocated more equitably and men allocated more equally. Inspection of subjects' separate allocations in an independent reward allocation indicated that the variables of future interaction and gender of co-worker also affected subjects' allocations to themselves and their co-workers. When allocating to female co-workers, men allocated more of a reward to themselves than did women, regardless of whether they were expecting future interaction with their co-worker or not. However, when men did not expect to interact with a female co-worker, they allocated more of a reward to her than did women. When women expected to interact with a female co-worker, they allocated more money to her than when they would not.

Thus, it seems that overall, men tended to allocate more of the reward to female co-workers than did women. When comparing joint reward allocations with independent reward allocations, there was a slight tendency for a gender of allocator effect. Regardless of the type of allocation situation, there was a trend for women to allocate more equitably and for men to allocate more equally.

Kahn et al. (1980a) suggest that a reason for why a limited number of studies exist using the gender of co-worker factor is due to the fact that this factor tends to present self-presentational concerns. Research suggests that when men are in a group, they tend to be the dominant figures. Furthermore, when a woman outperforms a man, equity theory would predict that since she is performing contrary to sex-role expectations she may receive less than an equitable share of the reward (Hagen & Kahn, 1975; Kahn et al., 1980b). Conversely, Kahn et al. (1980a) demonstrated that when a woman's inputs in a mixed-gender group were low, research suggested that she would receive a greater share of the reward than would be equitable.

Thus, allocations appear to be more favorable to a co-worker if there is direct social contact between the allocator and the co-worker (Carles & Carver, 1979; Kahn, 1972); if future interaction is expected (Major & Adams, 1984; Shapiro, 1975; Von Grumbkow et al., 1976); or, if the relationship between the allocator is one of friendship (Carles & Carver, 1979; Leung & Park, 1976; Watts &

Messe, 1982). This research points to the fact that more attention should be placed on situational variables in analyzing gender differences in reward allocations.

#### Gender Differences in Disclosure of Reward Allocations

Much of the early research in studies of the disclosure of reward allocations (public versus private) only used male dyads or same-gender dyads (Kahn et al., 1980b). There is evidence to suggest that the salience of self-presentational concerns influence gender differences in reward allocations (Kidder et al., 1977; Prator & Greenberg, 1982).

A study by Prator and Greenberg (1982) failed to show any overall effect for public versus private conditions of responding, but did indicate an interaction with gender of the allocator. Women, who were led to believe that their fellow group members had underpaid a target person, conformed more to the group in the public condition than in the private condition. Prator and Greenberg suggested that greater public conformity by the women may have occurred because women were more concerned with preserving group harmony than were men.

Kidder et al. (1977) demonstrated that gender differences resulted under conditions of public versus private reward allocations when both men and women allocated a reward to themselves and a female co-worker (Study 2), and when subjects allocated a

reward to themselves and to a same-gender co-worker (Study 3). Subjects in the public condition were led to believe that their answers would be examined by both the experimenter and their co-worker. Subjects in the private condition were assured of anonymity. The results demonstrated that men tended to allocate equitably and women to allocate equally under the public condition. Alternatively, under the private condition, men allocated equally and women allocated equitably. The authors suggested that under a private condition, men and women did not have to adhere to traditional sex role expectations and could allocate counter to traditional norms. This study suggests that gender differences in reward allocations may be a function of the sex-role stereotypes present in our society. When relieved of these expectations, men and women may distribute rewards differently than the research has demonstrated. One can hypothesize that measuring an individual's sex-role stereotype may shed some light upon how men and women allocate rewards.

#### Gender Differences and Future Interaction

Kahn et al. (1980b) suggest that when subjects do not expect to interact with co-workers, men should adhere more strongly to the equity norm. This is supported by Shapiro (1975) who, in his research with male dyads, suggests that when future interaction is expected, self-presentational concerns will play a large role. In



Shapiro's study, men preferred to allocate rewards more equitably when they did not expect to interact with the co-worker and more equally when they did expect future interaction.

Sagan et al. (1981) extended Shapiro's study and investigated the effects of gender of allocator, gender of co-worker, and the presence or absence of anticipated future interaction on the effects of reward allocations made by high performing allocators. The authors hypothesized that a gender of co-worker effect would not be found under conditions of high social interaction. Thus, in situations where gender of allocator and level of interaction are clear, gender of co-worker should not play a crucial role in reward allocations decisions; however, when interaction is uncertain, gender of co-worker should influence the choice of the equality or equity norm when allocating rewards.

In the Sagan et al. study, subjects met each other, but worked on the same task in separate rooms. Subjects in the future interaction condition were told that they would meet their co-worker again after the task was completed. However, subjects were not told that they would have to justify their allocation decisions to the co-worker.

Sagan et al. found that men and women allocated rewards differently based upon a person/position orientation (Lerner, 1975, 1977). For women, the mere existence of their co-worker, regardless of future interaction, elicited an equal distribution of rewards.

However, men's allocations were influenced by the anticipation of future interaction. Men allocated more equitably when they did not expect future interaction with their co-worker and more equally principle when they would be interacting with their co-worker.

The reasons subjects gave for their allocation decisions may help to further elucidate subjects' allocation choices. Men, who allocated equitably, attached greater importance to the number of problems which were correctly answered by either their co-workers than did women. Egalitarian allocators attached greater importance to the amount of time their co-workers spent on the task rather than the number of correct answers; however, this was only important when allocating to female co-workers.

In terms of attribution theory (Weiner et al., 1971), Sagan et al.'s study would suggest that subjects who allocated equitably were more concerned with the ability of their co-workers to perform the task. Conversely, subjects who allocated equally viewed the effort which their co-worker expended on the task as being more important than the subject's ability.

Thus, one would hypothesize that when allocating to individuals with high ability, an equity distribution norm would be used to give a larger reward to high ability individuals. When allocating to subjects who performed a task with a high degree of effort, an equality distribution norm would be used. In addition, one would hypothesize, based on the Sagan et al. study, that men who allocated

a reward equitably would allocate a higher reward to a person who succeeded due to ability than to a person who succeeded due to effort. In addition, both men and women would reward effort and ability similarly for female co-workers.

### Gender Differences and Situational Factors

Several studies have demonstrated that social interaction facilitates reciprocal liking among participants (Freedman, Carlsmith & Sears, 1974; Greenberg, 1978a; Miller & Marks, 1982). Freedman et al. suggested that people who expected to interact with someone might exaggerate the person's positive traits and downplay their negative traits (i.e., poor performance in a reward distribution paradigm). The authors contended that individuals who tried to convince themselves that the interaction would be pleasant were trying to reduce the interpersonal conflict.

Miller and Marks (1982) demonstrated this to be true and found that both men and women tended to project their own viewpoints onto a same-gender peer to a greater degree when they expected to interact with that person than when they did not expect interaction. They suggest that there is a functional value inherent in the motivations of these subjects in order to be assured that the future interaction will be harmonious.

Miller and Marks' contention is supported by Greenberg (1978a) who extended their argument to the allocation of rewards. Greenberg

suggested that individuals tended to violate the equity norm when allocating rewards by treating similar others more generously. Furthermore, these individuals were willing to decrease their rewards in order to maximize the outcomes of others who were similar to them. Both men and women kept a larger portion of the reward when their partners were known to be dissimilar to them than when their similarity was unknown. However, in the unknown condition, men kept significantly more of the reward for themselves than did women. In the similar condition, only men kept less of the reward. These results are supported by research suggesting that social approval and self-presentational concerns may override concerns of maximizing one's own outcomes (Lerner, 1977; Miller & Marks, 1982; Sagan et al., 1981; Shapiro, 1975; Von Grumbkow et al., 1976).

In terms of attribution theory, when subjects are more successful than a similar other they attribute their success to luck (external), whereas success over dissimilar others tends to be attributed to effort (internal) (Greenberg, 1978a). Greenberg suggests that similarity between co-workers in an exchange relationship, and their reward allocations may be affected by the attributions made regarding the causes of the coworkers' inputs. Subjects, in Greenberg's study, were more likely to give themselves more of a reward when they were responsible for the task than when their success occurred by chance.

One would hypothesize, based on Greenberg's (1978a) study, that when allocating rewards to high and low performers who succeed due to internal attributions, an equitable distribution of the rewards should occur. When allocating rewards to high and low performers who succeed due to external attributions, an equal distribution of the rewards should occur.

Watts and Messe (1982) examined the question of whether subjects' evaluations of a reward allocation were moderated by a variety of factors such as the allocator's behavior, the situational context (social versus business), and personal attributes of both the allocator and co-worker. Watts and Messe found that subjects' impressions of an allocator in a scenario were significantly influenced by the situational context. Specifically, equitable allocators were perceived as more rational and fair when their performance was superior to that of their partners. Allocators who divided the reward equally were seen as more fair if their performance matched their co-worker's performance. Subjects also reacted more favorably to an egalitarian allocator, but perceived equitable allocators as being more rational than inequitable allocators.

The above effects were also mediated by the gender of the allocator in the scenario. Men who allocated more equitably were perceived as being more fair and rational than were women. In comparison, women who allocated more equally were perceived as being

more rational and fair than men. The social context also affected the subjects' evaluations of an allocator who favored a particular distribution norm. Both men and women rated the egalitarian allocator more positively, regardless of social context. However, allocators were perceived as more fair in the social situation than the business situation.

Carles and Carver (1979) also examined the influence of the situational context on reward allocations. They manipulated the gender of the subject, salience of the role of their same-gender co-worker (role-salient versus person-salient), and input level of the subject (high versus low). They found that how men and women perceived the nature of the relationship clearly influenced the manner in which rewards were allocated. Their results indicated an interaction between type of relationship (role versus person) and gender of subject. Regardless of input level, women allocated significantly more of a reward to themselves in the role-salient condition (subjects were not given any information about their co-worker) than in the person-salient condition (the co-worker was described as a unique individual). Conversely, men allocated more to themselves in the person-salient condition than in the role-salient condition. However, both men and women who were high input performers allocated more money to themselves than did low input performers.

Carles and Carver's results also indicated that both men and women perceived the competitive aspects of the relationships differently. Women perceived their co-workers as being more competitive in the role-salient condition, whereas men perceived their co-worker as being more competitive in the person-salient condition. These findings suggest that competition seems to occur among men when they are familiar with each other, and occurs among women when they are unfamiliar with each other. An explanation for Carles' and Carver's findings may be the use of same-gender dyads. Using mixed-gender dyads may result in changing the competitive nature of both men and women. Thus, it appears that the nature of the dyadic relationship as well as the gender of the allocators and co-workers has an influence on reward allocation.

In conclusion, the research cited supports previous work suggesting that the social context influences the use of an equity norm (Deutsch, 1975; Leventhal, 1976; Leung & Park, 1986; Walster & Walster, 1975). Observers may pay more attention to inputs and rewards in a business context than in a social context due to the link between rewards and performance, i.e. individuals should be rewarded for their contributions in an employment situation and their reward should be proportional to their contributions (Lawler, 1968, 1971). In addition, subjects' evaluations of allocators' rationality and fairness supports previous research indicating that men, who may be more concerned with competition, allocate according

to the equity principle; and women, who are more sensitive to issues of interpersonal harmony, allocate according to the equality principle (Kahn et al., 1977; Leventhal & Lane, 1970; Major & Deaux, 1982). Thus, a reason for gender differences in reward allocations may be due to the fact that when women allocate equitably, they are either acting differently than sex-role expectations would dictate (Callahan-Levy & Messe, 1979), or they are misjudging their contribution to the outcome (Reis & Jackson, 1981).

#### Gender Differences and Type of Allocation Decision

Research suggests (Evensen, 1987; Kidder et al., 1977; Major & Adams, 1984) that gender differences may be mediated by the type of allocation decision. Major and Adams suggest that the majority of research in reward allocations have investigated subjects splitting a joint reward of a fixed amount between themselves and their co-workers. These researchers contend that this type of allocation decision tends to make interpersonal concerns very salient. For example, when allocators take more for themselves, they have to allocate less of a reward to their co-workers. Major and Adams suggest that "the almost total use of zero-sum allocation decisions in past research may have biased findings in favor of women allocating rewards more equally than men" (p. 872). This implies that the findings in the Kidder et al. (1977) study in which women allocated rewards more equitably than men did in the private



condition, may have been a function of subjects allocating independent reward allocations (i.e., subjects could allocate up to a certain amount to themselves and their co-workers) rather than joint allocations (Major & Adams, 1984).

Subsequently, both the Major and Adams' (1984) study and the Evensen (1987) found different results as a function of the type of allocation decision. Subjects in the Major and Adams study allocated the reward more equally when making joint-reward divisions than when making independent reward allocations. In the Evensen study, there was a trend for women to allocate more equally when making joint allocations and more equitably when making independent allocations. No differences were obtained for men. Thus, in the present research subjects allocated the rewards both jointly and independently.

### Conclusion

The research cited above suggests that men tend to be more influenced by the gender of the co-worker and anticipation of future interaction than are women. Additionally, the research suggests that the use of the equity norm by both men and women is heavily influenced by the recipient of the allocation, and whether or not the allocator is expecting to interact with the recipient of that allocation decision.

The data on men and women seems to provide a consistent picture in terms of differences in the choice of allocation behavior. Studies seem to indicate that men take a larger share of a reward than do women (Kahn et al., 1980; Katz & Messe, 1976; Lane & Messe, 1971; Leventhal & Lane, 1970; Messe & Callahan-Levy, 1979). Research has also suggested that the American culture is one in which traditional sex roles proscribe that it is appropriate for men to be more concerned with achievement and equity and women to be more concerned with interpersonal concerns (Deutsch, 1975; Kahn et al, 1977; Feather & O'Driscoll, 1980; Watts & Messe, 1982; Sampson, 1975; Mikula, 1974), and that gender differences tend to be more pronounced in American culture than in other cultures (Mikula, 1974).

Kahn et al. (1980a) suggest that a limitation to the gender difference in reward allocation research is that subjects tend to be classified on the basis of their biological sex which can result in a wide variety of individual responses. They suggest that another individual difference which has not been explored in the allocation literature is that of sex-role orientation. This may further elucidate, both across and within gender, how men and women differ in terms of their reward allocations.

### RATIONALE AND PURPOSE OF THE PRESENT STUDY

Research in the leadership literature (Dobbins, 1985; Dobbins, Pence, Orban, & Sgro, 1983; Podsakoff, 1982; Podsakoff & Todor, 1985) suggests that the manner in which leaders allocate rewards and punishments can directly affect their subordinates' performance and satisfaction. In Podsakoff's (1982) review of the literature, he asserts that leaders who administer rewards and punishments contingent upon performance can cause an increase in the performance and satisfaction of their employees. In contrast, if leaders do not make rewards and punishments contingent upon performance, they can expect feelings of dissatisfaction, discontent, and conflict to be expressed by their subordinates. He contends that an important dimension of leadership is how a leader allocates rewards and punishments, and that this action can have a significant impact on how effective that leader is in leading his or her subordinates.

Pay equity can be defined as existing when the ratio of one's pay to one's inputs to the organization is the same as the ratio of a comparison other's pay to inputs (Adams, 1965). Equity theory and previous research on the theory (Adams, 1965; Adams & Freedman, 1976; Leventhal, 1976, 1980; Walster et al., 1973, 1976, 1978; Walster & Walster, 1975) indicate that reward allocators distribute rewards to achieve or restore equity to others, and that both equity and equality distribution norms are used to allocate rewards. Under an equal allocation of a reward, all participants receive the same

reward regardless of merit; under equity, the reward is distributed proportionally according to a measure of contribution or worth (Deutsch, 1975; Sampson, 1975).

Katz and Kahn (1978) argue that equity is very important to organizations because when it is closely related to decisions regarding pay and promotions, inequity may reduce employees' motivation and morale, thereby reducing organizational effectiveness. Researchers (Deutsch, 1975; Lawler, 1968, 1971; Leventhal, 1976, 1980; Sampson, 1975) argue that the type of allocation strategy used to allocate rewards can affect the employees' quantity and quality of work. They contend that the equity norm serves to maintain the productivity of a group while equality functions to maintain harmony within the group. Evidence exists to support these theorists' contentions. Lerner (1975) and Leventhal et al. (1972) found that when partnership was stressed and subjects were told to minimize interpersonal conflicts, subjects ignored input differences and adopted the equality principle to allocate rewards. However, when subjects were told to promote competition, equity was chosen.

Dobbins (1985) suggests that a leader's use of an equality strategy as opposed to an equity strategy to distribute rewards may produce feelings of inequity in his or her subordinates; and thereby, communicate to them that their performance on a particular task is irrelevant. This perception of inequity might result in

dissatisfaction, absenteeism, and turnover in his or her employees. A good deal of equity theory research (Hatfield & Spencer, 1984; Lawler, 1968, 1971; Leventhal, 1976, 1980) has examined the employer-employee relationship: how an employee goes about allocating resources, what the employer's reasons are for choosing a particular allocation strategy, and what variables may affect an employer's choice of ways to allocate a reward. Allocation decisions have been found to be influenced by allocators' desires to: (a) maintain equity (Callahan-Levy & Messe, 1979; Kahn et al., 1980a; Leventhal & Lane, 1970); (b) protect a co-worker's welfare (Leventhal & Lane, 1970); (c) reduce conflict surrounding the allocation decisions (Leventhal et al., 1972); and (d) maximize a person's own gains (Callahan-Levy & Messe, 1979; Larwood et al., 1979). Therefore, how leaders distribute or allocate rewards has important implications for management policy, employees' pay, and employees' motivation.

The present research was designed to examine reasons as to:

- (1) why employers or leaders make the allocation decisions that they do, and what individual differences may influence an allocator's choice of a allocation strategy;
- (2) why certain allocators, regardless of input, choose to allocate pay and other resources equally instead of equitably; and,
- (3) what factors might account for the reversal of men and women's allocation strategies exhibited in the Kidder et al. (1977, Exps. 2 and 3) study.

Kidder et al.'s (1977) findings indicate that men and women exhibit a reversal in their choice of allocation strategies under public and private situations: in public, men allocate rewards to themselves and to others based on equity, but opt for a more equal allocation in private; whereas, women allocate rewards equally in public and equitably in private. The present study will explore whether a person's confidence about his or her reward allocation decision, his or her sex-role orientation, and self-esteem influence how an allocator allocates a reward, and if these variables may be responsible for the shift in the public versus private allocation decisions that are demonstrated in the Kidder et al. study.

Based on the literature reviewed, the following questions will be examined:

1. Do all men and women exhibit the reversal allocation behavior demonstrated in the Kidder et al. (1977) study, or are there certain individual differences that can account for the reversal?
2. Are there within gender differences as well as within context differences (public versus private) between men and women when making reward allocations?

Past research (Brockner & Adsit, 1986; Dalton, Todor, & Owen, 1987; Kahn et al., 1980b; Major & Deaux, 1982) suggests that certain individual differences impact on how a leader allocates a reward. Furthermore, these individual differences have been found to result in differential reward allocations for recipients with similar performance outcomes. One of these individual differences is the gender of the person allocating the reward. The research (Kahn

et al., 1980b; Major & Deaux, 1982) indicates that a main effect for gender of allocator exists in reward allocations, suggesting that, in general, men choose to allocate rewards more equitably, whereas women choose to allocate rewards more equally. The common explanation is that since men tend to be more concerned with the competitive aspects of a relationship and women are more desirous of maintaining a harmonious relationship and are less self-interested than men, men are more likely to allocate rewards equitably and women more likely to allocate rewards equally. The logic behind this explanation suggests that equity enhances competition and equality promotes harmony within an exchange relationship.

Hypothesis 1: Based upon previous research suggesting that the equity norm is differentially salient for men and women, a main effect for gender of allocator is predicted, such that men will tend to choose the equity norm to allocate rewards and women will tend to choose the equality norm.

Recently, researchers (Dalton et al., 1987; Dobbins, 1985; Dobbins et al., 1983; Kahn et al., 1980a; Reis & Jackson, 1981) have suggested that gender differences in reward allocations are a function not only of the gender of the person allocating the reward but of other variables, such as gender of the recipient and gender-type of the task that the individuals are engaged in. Specifically, the research demonstrates that the gender composition of the dyadic relationship between the allocator and the recipient(s) of the allocation, and the context in which the

allocation takes place, appear to mediate the choice of a particular allocation norm by both men and women. Therefore, a key to understanding the differences in reward allocations may reside in examining the gender composition and nature of the relationship between allocators and recipients (Dalton et al., 1987). Reis and Jackson (1981) reported that both men and women allocators are more generous in their reward allocations when they allocate to a recipient of the opposite-gender than to a recipient of the same-gender as the allocator. Moreover, the research suggests a tendency for men to react more to the gender of the recipient than do women and thus, allocate rewards more equitably when recipients are male rather than female (Kahn et al., 1977, 1980a).

An explanation for the interactive effects of gender of allocator and gender of recipient may be due to self-presentational concerns (Callahan-Levy & Messe, 1979; Kahn et al., 1980a; Major & Deaux, 1982). Callahan-Levy and Messe (1979) suggest that self-presentational concerns appear to be stronger when the recipient of the allocation is a member of the opposite-gender. These authors found that, when allocating money to themselves, women took less money than did men; but allocated more money to female recipients than to male recipients. Furthermore, men tended to give more money to their female co-workers than to male co-workers, and use different reward allocation strategies depending upon the gender of the recipient of their allocation. Kahn et al. (1980a) found that



when the low input performer was a female, men tended to allocate rewards equally; conversely, men used an equitable distribution to allocate rewards when the low performer was a male. Women did not differ in their reward allocations on the basis of gender of the recipient.

Kahn et al. (1980a) note that most gender of allocator differences in reward allocation have been limited because most studies have only used same-gender groups. They contend that since the variables of gender of allocator and gender of recipient are confounded, effects attributed to gender of allocator may be more a function of gender of the recipient. Therefore, in the present study, subjects allocated rewards to same-or mixed-gender dyads. This allowed the researcher to examine whether the gender differences typically found in reward allocations may be due, at least in part, to the interaction of gender of the allocator and gender of the recipient of the reward allocation.

**Hypothesis 2:** Based on previous research suggesting that men's reward allocations are more influenced by gender of the recipients of their reward allocation than are women's, an interaction between gender of allocator, gender of high performer, and gender of low performer for reward allocation measures is predicted.

Dobbins and his colleagues (Dobbins, 1985; Dobbins et al., 1983) have suggested an explanation as to why gender differences in reward allocations exist. These researchers, by applying attribution theory (Weiner et al., 1972; Weiner, 1985b) and equity theory (Adams, 1965; Walster et al., 1976, 1978) to explain

organizational phenomena, reported significant differences between same-gender and opposite-gender dyads when attributing causation for performance. These researchers found that men and women leaders responded differently to poor performing workers and used allocations norms of either equity or equality when allocating rewards and punishments. Dobbins (1985) demonstrated that men use the equity norm to differentially punish subordinates who perform poorly due to a lack of effort or ability, and women tend to punish subordinates equally regardless of the attribution made for their performance. In addition, subjects in same-gender dyads tended to make more external attributions for poor performance than did opposite-gender dyads. This suggests that men and women leaders may make differential reward allocations based upon different attributions of causation for performance.

It is important to examine the causal attributions of performance for an individual's behavior. Causal attributions are important because they determine whether specific performances are seen as accidental occurrences or as likely to be repeatable in the future. Perceptions of causation and repeatability of performance are crucial because they can greatly influence decisions made about individuals who are being judged.

Evidence (Deaux, 1976; Deaux & Farris, 1977; Wittig et al., 1981) indicates that men and women differ in the attributions that

they make for their own, as well as others', performances. Wittig et al. (1981) suggest that allocating rewards according to a norm of equity is applicable only when inputs in a situation are the result of internal causes. Men are more likely to consider effort and ability as relevant inputs, and since these differ across individuals, men are more likely to allocate equitably; women are more likely to consider participation as a relevant input and, since this is equal, allocate equally.

Research using male dyads (Cohen, 1974) and same-gender dyads (Wittig et al., 1981) supports the above contention, and demonstrates that more equitable distributions tend to be made when performance is due to internal dispositions (effort and ability), and more egalitarian distributions tend to be made when performance is due to external dispositions (luck and ease of task). Furthermore, the research (Deaux, 1976; Feather & Simon, 1975) also proposes that gender can exert a possible influence on attributions such that men are more apt to make internal attributions for the cause of their own behavior and that of others, whereas women are more apt to make external attributions.

In their study, Wittig et al. (1981) did not find any gender differences in the use of allocation strategies. A reason for this may be a function of two limitations to both the Cohen (1974) and Wittig et al. studies: 1) both used only same-gender dyads,

and 2) subjects were placed into attributional conditions by the experimenters rather than allowing subjects to form their own attributions for the recipient's performance, and then allocating the rewards. Given the possible role of attribution theory in explaining why subjects choose to allocate rewards as they do, one might expect that subjects' own attributions for a recipient's performance would certainly affect subsequent reward allocations.

Gender differences of the recipient were also found to influence attributions made regarding the level of effort expended by the recipients in attaining the group goal. Kahn et al. (1980a) found that the presence of a man in a group lead both men and women to make attributions of greater effort. The authors suggested that equitable allocations may have occurred because subjects focused more on the competitive aspects of the situation when men were present. They also suggested that the reason why men reacted more to the gender of the low performer than did women was because the "norm of male chivalry toward 'helpless' women becomes salient to men but not to women subjects " (Kahn et al., 1980a, p. 741).

**Hypothesis 3:** Based on previous research suggesting that men make more internal attributions than women do, a main effect for gender of allocator is predicted, such that men will attribute an employee's performance more to ability than effort when making equitable allocations; and women will not differentiate between ability and effort attributions.

**Hypothesis 4:** Based on previous research suggesting that both men and women will attribute greater effort to male recipients and lower effort to female recipients, an interaction between

gender of high performer, and gender of low performer is predicted.

A critical difference in reward allocations appears to be whether a reward allocation is made in a public context or a private context (Kidder et al., 1977; Leventhal, 1976; Leventhal et al., 1972; Major & Adams, 1984). The research indicates that if rewards are allocated in private, individuals tend to allocate equitably and take the inputs related to the specific performance into account. If rewards are allocated in public, individuals tend to allocate equally (i.e., in a manner that is more lenient and results in less conflict).

Researchers (Lawler, 1975; Lawler & Thompson, 1978; Leventhal, 1976; Leventhal et al., 1972) have suggested that imposing secrecy or privacy around an allocation decision tends to reduce conflict. Preventing subordinates from comparing their rewards can be an effective way to reduce such conflict since it prevents subordinates from "revolting" or retaliating against the employer making the rating or allocation decision (Lawler, 1975; Lawler & Thompson, 1978). Leventhal et al. (1972) found that when rewards were made in public, subjects reduced the difference in pay between high and low performers by increasing the low performers' share of the reward. In private allocations, the difference between high and low performers' share of the reward was much greater. Thus, whether the reward allocation occurs in private or public seems to influence an allocator's choice of an allocation strategy.

A similar situation exists in the performance appraisal literature in terms of making ratings in public versus private conditions. The performance appraisal literature contends that performance appraisal ratings made in public are more lenient (contain more errors) than ratings made in private (more "true" ratings) (Landy & Farr, 1980; Zedeck & Cascio, 1982). In a manner similar to the use of performance appraisals, reward allocations may be even more lenient if a person has to justify or explain their ratings and reward allocations to a person than when the allocator can make those ratings and reward allocations in private (Leventhal, 1976).

A limitation to the majority of the studies in the reward allocation literature is that many of these studies only examined whether allocations were made in a public situation in which allocators expected to justify the allocation decision to both the experimenter and the recipients, or in a private situation in which the allocation decision was made in secret. This is important because when an allocator expects to make his or her allocation decision in public, the image the person projects to others becomes salient. Specifically, persons may allocate rewards in a manner which would lead to social approval of them by persons affected by the allocation. Kidder et al. (1977) espouse that people choose to allocate rewards equally in public because they are concerned with presenting themselves favorably to others. However, to whom the

person has to present himself or herself has bearing on how that person may allocate a reward. Thus, a purpose of the present study was to examine whether the interaction between gender of the allocator and disclosure of the reward allocation which occurs in the Kidder et al. study is a function of subjects having to justify their allocation decision to the recipients, to the experimenter, or to both.

Research (Reis & Gruen, 1976), using male dyads, suggested that men may be more concerned with maintaining equity when justifying their reward allocation to a supervisor than when justifying their allocation to their employees. They suggested that the typical research paradigm in the reward allocation literature is analogous to an organizational setting where an exchange occurs between an employer and his or her subordinate. Specifically, they contend that since an experimenter is "... concerned with the performance, or productivity, of his subjects, and ... personifies the norm of equity" (Reis & Gruen, 1976, p. 489), subjects may be more inclined to use an equity norm to allocate a reward if the experimenter is aware of their allocation decision. Reis and Gruen demonstrated that subjects made greater allocations to themselves when those allocations occurred in private and their allocations were confidential. However, when others were aware of the allocation decision and this was a salient source of social approval or disapproval, subjects differentiated between equity and equality

depending upon who was aware of their allocation decision. For example, subjects allocated equitably when the experimenter was aware of their allocation decision and equally when recipients were aware of their allocation decision.

Evidence (Kidder et al., 1977; Lane & Messe, 1971; Major & Adams, 1983) also suggests that the disclosure of the allocation decision (whether the allocation occurs in private or in public) interacts with gender of the recipient of the allocation decision to influence both men's and women's choices of an allocation strategy to distribute rewards. Specifically, gender differences in reward allocations may be the result of social-situational factors influencing the choice of an allocation norm. These authors suggest that adherence to the norm of equity is most stringent when reward distributions are under public scrutiny by recipients of the opposite-gender. Lane and Messe (1971) found that gender of the recipient interacted with public versus private disclosures of reward allocations, such that allocators allocated a lower amount of money to themselves in public situations than in private situations, especially when the recipient was of the opposite-gender as the allocator.

Kidder et al.'s (1977) results demonstrating that men make more equal allocations in private are contrary to studies (Major & Adams, 1984; Reis & Gruzen, 1976) demonstrating that men make



more equitable allocations when self-presentational concerns toward their co-workers are salient (public condition) than when those concerns are not salient (private condition). Based on research (Callahan-Levy & Messe, 1979; Kahn et al., 1980a) suggesting that men and women are differentially affected by self-presentational concerns, there is evidence to suggest that gender differences in reward allocations will be more apparent in situations in which impression-management concerns are important (allocations made in public) and reversed in situations where these concerns are minimized (allocations made confidentially in private), opposite to the Kidder et al. findings.

An explanation for the Kidder et al. findings may be the fact that the authors confounded the "public versus private" manipulation with a "future interaction with recipients" manipulation. Subjects in the Kidder et al. study were told that they would be justifying their allocation decision to both the experimenter and the recipient. It is unclear whether allocations in this study were influenced by subjects being monitored by the experimenter or by subjects' concerns about meeting the recipients of their allocations. Therefore, to compare the effects of the two different manipulations, a different manipulation was used in the present study. Allocations were made under four different levels of the disclosure of reward allocation variable: (1) disclosure to experimenter - allocators only justified their allocation decision

to the experimenter, (2) disclosure to employee - allocators only justified their allocation decisions to the employees, (3) private (not see again) - allocators were told they would not see the recipients of their allocation again and would be making their allocations in private, and (4) private (see again) - allocators would not have to justify their allocation decision to anyone, but would see the recipients again in a working context. The logic for including this fourth level was that as the scenario in the study took place in the context of a large office in an organization, allocators might realistically see the recipients again unless the recipients had moved to another department or organization, regardless of whether they justified their allocations to them or not.

**Hypothesis 5:** Based upon previous research demonstrating that subjects will allocate differently depending upon the context of the allocation condition, it is predicted that a main effect for disclosure of allocation condition will be obtained such that subjects will choose an equitable allocation of rewards more often in the two privacy conditions and the disclosure to experimenter condition, and an equal allocation in the disclosure to employee condition.

**Hypothesis 6:** Based upon previous research suggesting that men and women make different reward allocations depending upon a public and private context and the gender of their recipient, an interaction between gender of allocator, gender of high performer, gender of low performer, and disclosure of the reward allocation decision is predicted for all six reward allocation measures.

One possible explanation for gender differences in the reward allocation literature may be a function of the allocator's

confidence surrounding the allocation decision. The research suggests that self-esteem may play a very important role in the reward allocation literature. Coopersmith (1967) defines the concept of self-esteem as

"the evaluation which the individual makes and customarily maintains with regard to the self: It expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes the self to be capable, significant, successful, and worthy" (pp. 4-5).

Past research demonstrates that women tend to downgrade their accomplishments in comparison to other men and women despite their experiences (Callahan-Levy & Messe, 1979; Deaux, 1976; Lenney, 1977). Furthermore, women in management-related occupations tend to hold a negative stereotype regarding their own self-competence and self-worth, and do not consider themselves to be as competent as men on a variety of tasks, such as allocating money (Callahan-Levy & Messe, 1979; Deaux, 1976; Feather & Simon, 1973). Unfortunately, none of these studies have examined whether men experience negative self-worth or what their confidence level might be when making reward allocation decisions.

Callahan-Levy and Messe (1979) suggest that women choose to allocate rewards more equally because they have a weaker sense of their own worth; and may not feel as confident as men when making a decision about how to allocate rewards. Since men tend to perceive a closer connection between their own worth to an

organization, i.e., what they are worth in terms of money to an organization, they choose to make more equitable allocations.

Callahan-Levy and Messe's findings indicate that when men and women make allocations in either public or private, they tend to act in a manner that is more "psychologically healthy" (p. 445) for them. When making a public allocation, if women and men are expected to discuss their reward allocations, and women are less positive about their reward allocation decisions, women may be more apt to think that it is easier to allocate equally than to justify in public why they chose an equitable distribution. Men, on the other hand, may believe the opposite, and perceive that it is much easier to justify an equitable distribution as that is an expectation in business (Lawler, 1975; Leventhal, 1976). However, in private where no one has to know their allocation decision, men may feel more freedom to change their decision to an equitable one. The more confident an individual feels about his or her allocation decision, the less apt that individual may be to reverse his/her use of a particular allocation strategy in a public versus a private situation.

Callahan-Levy and Messe also suggest that women choose to allocate rewards more equally because they have a weaker sense of their own worth, and women may not feel as confident as men when making a decision about how to allocate rewards. Since men tend

to perceive a closer connection between their own worth to an organization, i.e., what they are worth in terms of money to an organization, they are more likely to make more equitable allocations.

No study to date has explicitly examined the role of self-esteem and reward allocations. Callahan-Levy and Messe (1979) only asked subjects one question concerning their confidence about their allocation decision. Based on the research, one would hypothesize that the behavior of individuals will differ according to their levels of self-esteem.

**Hypothesis 7:** Based on previous research suggesting that women may feel less confident about their reward allocations than men, a gender of allocator by disclosure of reward allocation by self-esteem interaction is predicted such that men and women with different levels of self-esteem will allocate money differently in the public versus private disclosure conditions when making reward allocations.

Finally, a mediating factor for gender differences in reward allocations may be that men and women are trying to exemplify the societal sex-role stereotype concerning how men and women should act (Heilman & Kram, 1978; Kidder et al, 1977; Larwood et al., 1979; Skrypnek and Snyder, 1982). By allocating equitably, men can demonstrate their desire to reward competency and reinforce competitive success; whereas, equal allocations which focus on a lack of distinctions among people, can allow women to achieve status equality and more easily demonstrate warmth and expressiveness.

Skrypnek and Snyder (1982) suggest that further examination into the dichotomous groups of men and women may lend some understanding as to why gender differences exist in reward allocations. Research by Bem (1974, 1977, 1981) using the Bem Sex-Role Inventory (BSRI) has found that androgynous (non sex-typed) individuals tend to exhibit both male and female behavior depending upon the social context. Masculine individuals, who are oriented more towards the competitive aspects of situations, tend to engage in more masculine behaviors; while, feminine individuals, who are oriented more toward the nurturing aspects of situations, are more apt to engage in more feminine behaviors. Skrypnek and Snyder contend that feminine women are most limited in their behavioral repertoires, and when put into a situation in which they must use masculine behavior, they tend to report a loss of self-esteem.

Sex-role stereotypes provide strong normative expectations about how people should behave and can influence social rewards that follow appropriate or normative behavior (Bem, 1977; Deaux, 1976; Skrypnek & Snyder, 1982). Based on these findings, one might argue that women who subscribe to conventional stereotypes may consider it inappropriate to choose an equitable allocation strategy to distribute rewards in public; and similarly, men who also subscribe to conventional stereotypes may consider it inappropriate to choose an egalitarian strategy to allocate rewards in public as it may be contrary to sex-role stereotypes. These findings suggest that

within male and female sex-roles, all men and women may not show the reversal exhibited in the Kidder et al. (1977) study.

## METHOD

### SUBJECTS

One hundred and ninety-two male and female undergraduate students (96 males and 96 females) enrolled in introductory psychology courses, who volunteered to participate for extra credit toward their grade, served as subjects.

### DESIGN

A 2 (gender of subject: male v. female) x 2 (gender of high performer: male v. female) x 2 (gender of low performer: male v. female) x 4 (disclosure of the allocation decision: privacy (not see again) v. privacy (see again) v. disclosure to experimenter v. disclosure to employees) factorial design was conducted. All variables were between group factors. The experimental design resulted in 32 cells with equal cell sizes of 6 subjects per cell (see Table 1). Subjects were randomly distributed among the cells.

### PROCEDURE

At the outset of the study, subjects were told that the purpose of the research was to "explore differences in people's behavior under different working conditions such as when individuals are required to make decisions in groups or when working on their own." Subjects were told that they would be in the group working on



Table 1

## Design of Present Study

Gender of Subject	Gender of High Performer	Gender of Low Performer	Disclosure of Reward Allocation
Female	Female	Male	Private (not see again)
	Female	Male	Private (see again)
	Female	Male	Experimenter
	Female	Male	Employee
	Female	Female	Private (not see again)
	Female	Female	Private (see again)
	Female	Female	Experimenter
	Female	Female	Employee
	Male	Male	Private (not see again)
	Male	Male	Private (see again)
	Male	Male	Experimenter
	Male	Male	Employee
	Male	Female	Private (not see again)
	Male	Female	Private (see again)
	Male	Female	Experimenter
	Male	Female	Employee

Table 1 (continued)

## Design of Present Study

Gender of Subject	Gender of High Performer	Gender of Low Performer	Disclosure of Reward Allocation
Male	Female	Male	Private (not see again)
	Female	Male	Private (see again)
	Female	Male	Experimenter
	Female	Male	Employee
	Female	Female	Private (not see again)
	Female	Female	Private (see again)
	Female	Female	Experimenter
	Female	Female	Employee
	Male	Male	Private (not see again)
	Male	Male	Private (see again)
	Male	Male	Experimenter
	Male	Male	Employee
	Male	Female	Private (not see again)
	Male	Female	Private (see again)
	Male	Female	Experimenter
	Male	Female	Employee

their own. After completing a consent form and handing it back to the experimenter, subjects were given instructions regarding the packet of information they were to complete. Subjects in the privacy conditions were run separately from subjects in the public conditions.

### Instructions

Subjects were given the following instructions:

The present research is designed to explore differences in people's behavior under different working conditions (e.g., working for the same or different amounts of time or when working in a group compared to working alone). Often, when working on a variety of tasks, individuals are required to make decisions in such groups or when working on their own. We are interested in learning more about how individuals make these decisions. The purpose of this study is to help us understand that process. You will be in the group of individuals who are making a decision alone.

Prior to beginning the study, all subjects read and signed a consent form and turned it into the experimenter. To ensure that subjects in the privacy conditions would believe that their answers would be made anonymously, these subjects were told that a code number would be assigned to them and that the experimenter would be unable to identify the subject or his or her answers from the code number.

To ensure that subjects in the non-privacy conditions (disclose to experimenter and disclose to the employees) would believe that they would be coming back to justify their answers to either the

experimenter or the employees in the narrative, subjects were asked to sign up for an appointed time in the next few days in order to explain their allocation decisions. Subjects were told that they were making appointments in order to explain and justify to either the experimenter or the employees (depending upon the condition) why they distributed the money in the manner that they did. To ensure that subjects would be sure to come back for their appointed time, they were informed that the two extra credit points that they would be receiving were contingent upon them coming to the second part of the experiment. If subjects did not return for the second part of the experiment, they did not receive their two extra credit points.

After receiving the packet and their instructions, subjects first completed the 60-item Bem Sex-Role Inventory (BSRI--Bem, 1974, 1981); and then read the narrative, performance reviews, and completed the post-task questionnaire which included the Rosenberg Self-Esteem Scale (see Appendix A for copies of the narratives, performance reviews, and the post-task questionnaire). Following the experiment, subjects were debriefed as to the manipulations and experimental design.

#### Bem Sex-Role Inventory

In order to examine the mediating factors of sex-role stereotypes in reward allocations, subjects in the present study were given the Bem Sex-Role Inventory (Bem, 1974, 1981) to complete

before reading the narratives. The BSRI consists of 60 seven-point Likert items on which subjects indicate how well each of the 60 masculine, feminine, and neutral personality characteristics best describe themselves. The test-retest reliability of the BSRI is between .75 to .90 (Bem, 1974, 1981). Subjects were instructed to rate each item according to how "each item best describes yourself." After completing the BSRI, subjects were instructed to proceed through the packet.

### Narrative

Next, subjects were told that they would be reading a narrative (Appendix B) in which they were to imagine themselves as a supervisor in a real organization. Subjects were asked to assume the role of the supervisor in the narrative to examine how supervisors make monetary decisions concerning their employees. Subjects were instructed to:

Please imagine that you are the supervisor described in the narrative. Read the narrative very carefully and the performance information following it, and then answer the questions on the following pages after the narrative.

Subjects were informed that the supervisor and two of his or her employees (males and/or females with a high performer working with a low performer) were part of a larger office working on a project together. The narrative took place at the time of a 6-month salary review for the two employees. One of the workers was depicted as a high performer and the other as a low performer. The supervisor's

task was to allocate \$12,000 between himself or herself and the two employees (joint allocation). The second task was to allocate up to \$12,000 per employee as well as to himself or herself (independent allocation).

Subjects were also told that they would be reading performance reviews regarding two employees who worked for them and to read this information carefully. Subjects were told to answer the questions on the pages following the narrative and performance review information.

#### Performance Level Manipulations

Subjects received performance information about how well or how poorly the employees under their supervision had performed. Subjects were given performance reviews on each employee (see Appendix B for the two performance reviews). Subjects were told that these reviews had been completed by them as the supervisor and were signed by their two employees. The performance reviews included information about each employee's quality of work, planning and organizational skills, judgment and decision making skills, communication skills, and human relations skills. The performance reviews confirmed that the high performer had received a high performance rating (4 points out of a possible 4), and the low performer had received a low rating (2 points out of a possible 4).

### Independent Variables

Gender manipulations. Male and female subjects were randomly assigned to the four different gender conditions. Subjects in the same-gender conditions read a narrative which involved the supervisor supervising either a high male performer and a low male performer or a high female performer and a low female performer. Subjects in the mixed-gender conditions read a narrative which involved the supervisor supervising either a high male performer and a low female performer or a high female performer and a low male performer.

Disclosure manipulation. Subjects were randomly assigned to the four different disclosure of allocation conditions. In the private (not see again) condition, subjects read that "the company policy is that all bonuses are considered to be distributed in private and confidential." In addition, subjects read that "it is the end of the project" and both employees would be "changing to another part of the company in another geographic area. You will not be seeing them again."

In the private (see again) condition, subjects read that "the company policy is that all bonuses are considered to be distributed in private and confidential." In addition, subjects read that "the project will continue for approximately another 6 months" and they would continue to supervise both employees during that time.

In the disclosure to experimenter condition, subjects read that "the company policy is that your manager is to be informed as to how you distributed the money". In addition, subjects were informed that "the experimenter will be acting as your supervisor, and during the appointment that you made prior to the study you will explain to your supervisor why you divided the money as you did."

In the disclosure to employees condition, subjects read that "the company policy is that the people whom you give money to are to be informed as to how you distributed the money." In addition subjects were informed that "during the appointments that you made prior to the study you will "explain to the two employees why you divided the money as you did."

#### DEPENDENT MEASURES

After reading the narratives and performance evaluations, subjects were asked to make two reward allocations. First, subjects were asked to divide the reward (\$12,000) between themselves and the high and low performers; secondly, they were asked to allocate up to \$12,000 to both themselves and the two performers, respectively. Due to the skewed distributions regarding the amount of money allocated to the subjects and the two performers, the amount of money was transformed to percentages of the \$12,000 for both the joint and independent allocation situations. The main dependent



measures were the amount of money subjects allocated to themselves and to the two performers. Subjects' allocations were determined in two ways: the percentage difference between the money allocated to the high performer and the amount of money allocated to the low performer; and the percentage of money the subject allocated to himself or herself. Subjects were also asked to indicate their reasons for both their joint and independent allocations.

To examine the frequency with which different allocation norms were utilized, three categories were established for subjects' allocations. Since the high performer's rating was twice as high (4) as the low performer's rating (2), equality was achieved when subjects' reward allocations were between 48% and 52% to both the high and low performers), equity was achieved when subjects' reward allocations to high performers were twice as much -- between 96% and over 100% -- as the low performers), and compromise (subjects' reward allocations fell between equality and equity). Drawing from Shapiro (1975), a convention was adopted that an allocation of within  $\pm 2$  percent was considered to conform to these rules.

Subjects also completed a questionnaire (see Appendix A) designed to probe subjects' reasons for their allocation decisions. Subjects were asked a number of questions on 5-point scales designed to check the manipulations and to probe the reasons for allocation decisions.

### Attributions

Subjects were asked to make two different attribution evaluations for high and low performers. For high performers, subjects were asked to apportion a 100% total amount between the following categories: (1) having the ability or skill to do the job; (2) working hard to do a good job; (3) working in an easy and not very demanding job; and (4) having a lot of good luck. For low performers, subjects were asked to apportion a 100% total amount between the following categories: (1) not having the ability or skill to do the job; (2) not working hard enough to do a good job; (3) working in a hard and very demanding job; and (4) having a lot of bad luck. A high percentage of ability and effort for the high performer would indicate that subjects attributed the high performer's performance to a lot of ability and working hard to do a good job. Similarly, a high percentage of ability and effort for the low performer would indicate that subjects attributed the low performer's performance to not having the ability or not working hard enough to do a good job.

Subjects were also asked to rate on separate 5-point scales ranging from "not at all" to "extremely" to what extent ability, effort, an easy task, luck, and degree of control were responsible for both the performance of the high and low performers. A high scale rating on ability and effort for high performers would indicate that subjects attributed the high performer's performance

to primarily ability and effort. A high scale rating for low performers would indicate that subjects attributed the low performer's performance to a lack of ability and effort.

#### Perception Items

Subjects also rated on 5-point scales ranging from "not at all" to "extremely" to what extent their allocation decision was influenced by: (1) how the high performer would feel; (2) how the low performer would feel; (3) avoiding conflict with the high and low performers; (4) maintaining a friendly atmosphere; (5) being friendly; (6) getting to know the two employees better; (7) avoiding being unpleasant; (8) making a favorable impression on the experimenter; (9) making a favorable impression on the employees; and (10) making the employees feel better.

#### Fairness of the Allocation Decision

Subjects the fairness of their allocations on 5-point scales ranging from "not very fair" to "very fair" the extent to which their allocations were: (1) fair or unfair; (2) fair to themselves; (3) fair to the high performer; and (4) fair to the low performer.

#### Liking and Competency of the Employees

Subjects rated on 5-point scales ranging from "dislike very much" to "like very much" the extent to which they liked or disliked

the low performer, experimenter, and high performer. Subjects also rated the competency of the high and low performers on 5-point scales ranging from "very incompetent" to "very competent."

#### Performance Variables

Subjects rated a number of questions on 5-point scales ranging from "very poor" to "very good": (1) how they perform when dividing money; (2) how other like them perform when dividing money; (3) how men divide money; (4) how women divide money; (5) how they have performed in the past when dividing money; (6) how they feel about how they divided the money; and (7) how someone else would rate how they divided the money.

#### Manipulation Checks

Subjects were asked to rate the performance of the high and low performers on 5-point scales ranging from "poor performance" to "outstanding performance." Subjects were also asked to rate on 5-point scales ranging from "not at all" to "extremely" how: (1) confidential their allocation decision was; (2) how aware the experimenter was of their decision; and (3) how aware the employees were of their decision.

### Rosenberg Self-Esteem Scale

In order to examine the mediating factors of self-esteem in reward allocations, subjects in the present study were given the Rosenberg Scale of Self-Esteem (1965). The Rosenberg scale consists of ten four-point Likert items on which subjects indicate the extent of their agreement with statements about their own worth and competence. Robinson and Shaver (1973) report correlations from .56 to .83 between Rosenberg's scale and other self-esteem scales and a 2-week test-retest reliability of .85. Rosenberg's scale is considered to be thorough in measuring the self-acceptance factor of self-esteem (Crandall, 1973).

## RESULTS

The dependent measures for subjects' reward allocations were the following: (1) the difference between money allocated to the high performer and money allocated to the low performer in the joint allocation situation; (2) the difference between money allocated to the high performer and money allocated to the low performer in the independent allocation situation; and (3) the amount of money the individual allocated to himself or herself in both the joint and independent allocation situations.

### Manipulation Checks

Several items were included in the final questionnaire (see Appendix A) designed to assess the effectiveness of the disclosure and the performance level manipulations. All manipulation check items were analyzed with 2 (Gender of Subject) x 2 (Gender of High Performer) x 2 (Gender of Low Performer) x 4 (Disclosure of Allocation) between-subject univariate analyses of variance (ANOVA).

Across each of the manipulation check items, the ANOVAs revealed that both the disclosure of allocation and performance level manipulations had been effective. First, subjects were asked to indicate which performance rating the high and low performers had received. No significant differences were obtained for subjects rating the performance of the high performer,

$F(1, 160) = 0.00$ , n.s., or for subjects rating the performance of the low performer,  $F(1, 160) = 0.00$ , n.s.. All subjects reported that the high performer had received an "outstanding performance" rating ( $M = 5.00$ ), and the low performer had received a "performance needs improvement" rating ( $M = 2.00$ ). These ratings corresponded to the high and low performer ratings which subjects read in both the narrative and the performance reviews.

Second, subjects were asked to rate to what extent they thought their division of the money was confidential, how aware they thought the experimenter was of their division of the money, and how aware they thought the employees were of their division of the money (see Table 2 for a breakdown of means within each disclosure of allocation condition).

A main effect for disclosure of allocation condition emerged on the confidentiality of the money division item,  $F(3, 128) = 158.78$ ,  $p = .0001$ . As seen in Table 2, a Duncan's pairwise comparison test indicated that subjects in the two private conditions, private (not see again) and private (see again), rated the division of money as more confidential than did subjects in the disclosure to experimenter condition and subjects in the disclosure to employee condition. Furthermore, subjects in the private (not see again) condition rated the division of money as more confidential than did subjects in the private (see again) condition.

Table 2

## Means for Manipulation Check Items

Disclosure of Allocation Conditions				
Variable	Private- not see again	Private- see again	Disclose to experimenter	Disclose to employee
Confidential division	4.92a	4.48b	3.10c	2.44d
Unaware to experimenter	4.58a	4.39a	1.35b	2.79c
Unaware to employee	4.39a	3.48b	3.48b	1.10c

**Note:** Means with different letters are significantly different from each other at  $p \leq .05$ .



A main effect for disclosure of allocation decision also emerged on how aware the experimenter was of the division of money item,  $F(3, 128) = 504.03, p = .0001$ . A Duncan's pairwise comparison test (see Table 2) indicated that subjects in the disclosure to experimenter condition rated the experimenter as more aware of the division of the money than did subjects in the disclosure to employee condition, the private (see again) condition, and the private (not see again) condition. No differences were obtained between subjects' ratings in the two privacy conditions.

A main effect for disclosure of allocation decision also emerged on how aware the employees were of the division of money item,  $F(3, 128) = 268.76, p = .0001$ . A Duncan's pairwise comparison test (see Table 2) indicated that subjects in the disclosure to employee condition rated the employees as more aware of the division of the money than did subjects in the disclosure to experimenter condition, the private (see again) condition, and the private (not see again) condition.

### Hypothesis 1

Hypothesis 1 predicted a main effect for Gender of Subject, such that men would tend to choose the equity norm to allocate rewards and women would tend to choose the equality norm. Two separate chi-square tests were performed to examine the effect of subjects' gender on which allocation norm was adopted for both

a joint allocation and an independent allocation. Subjects' allocations were classified according to the specific allocation norm that they used. The results for joint allocations and independent allocations are presented in Tables 3 and 4, respectively.

As seen in Table 3, gender of subject did not significantly influence which allocation norm subjects chose when making a joint allocation (subjects divided the \$12,000 between the high performer, the low performer, and themselves),  $X^2(2) = 0.33$ , n.s.. Overall, men and women preferred to use the equity norm or a compromise between equity and equality when allocating money in a joint allocation situation.

As seen in Table 4, subjects' gender also did not significantly influence which allocation norm subjects chose when making an independent allocation (subjects could distribute up to \$12,000 to each of the employees including themselves),  $X^2(2) = 2.64$ , n.s..

Thus, hypothesis 1 did not receive support in the present study. No significant gender differences were obtained; men and women did not differ in their choice of allocation strategies when making either joint or independent allocation decisions.

Table 3

## Effect of Subjects' Gender on Joint Allocation Norm Choice

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Gender of subject	Allocation Norm		
	Equality	Compromise	Equity
Male	8 (8.3%)	41 (42.7%)	47 (49.0%)
Female	6 (6.3%)	43 (44.8%)	47 (48.0%)

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Table 4

Effect of Subjects' Gender on Independent Allocation Norm Choice

Gender of subject	Allocation Norm		
	Equality	Compromise	Equity
Male	11 (11.4%)	43 (44.8%)	42 (44.8%)
Female	5 ( 5.2%)	49 (51.0%)	42 (44.8%)

## Hypothesis 2

Hypothesis 2 predicted that men's reward allocations would be influenced more by the gender of the recipients of their reward allocations than would women's allocations, such that a Gender of Subject x Gender of High Performer x Gender of Low Performer interaction would exist for the four reward allocation measures. Separate 2 (Gender of Subject) x 2 (Gender of High Performer) x 2 (Gender of Low Performer) Disclosure of Allocation) between-group univariate analyses of variance (ANOVA) were conducted on the reward allocation measures. As seen in Table 5, the predicted interaction was not found to be significant for any of the reward allocation measures. However, the prediction was partially supported when subjects made allocations to themselves in both the joint and independent allocation conditions.

Joint allocations to self. The prediction was partially supported by a significant Gender of Subject x Gender of High Performer interaction,  $F(1, 184) = 6.65, p \leq .025$ , when subjects allocated money to themselves in a joint allocation situation. The findings indicated that only men tended to allocate money differentially to themselves as a function of the gender of the high performer. Men allocated a higher percentage of money to themselves when supervising a female high performer than a male high performer

Table 5

F-values for the Gender of Subject x Gender of High Performer  
x Gender of Low Performer Interaction for Allocation Measures

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Variable	df	F-value
Difference Score for Joint Allocation	(1, 184)	.01
Difference Score for Independent Allocation	(1, 184)	.04
Joint Allocation to Self	(1, 184)	.01
Independent Allocation to Self	(1, 184)	.04

---

( $\underline{M}$  = 39.64 v. 33.81,  $p \leq .01$ ). Women's allocations were not significantly influenced by the gender of the high performers.

However, contrary to the hypothesis, women tended to allocate a higher percentage of the \$12,000 to themselves than did men ( $\underline{M}$  = 37.77 v. 33.81,  $p \leq .05$ ) in the presence of a male high performer. No differences were obtained between men's and women's allocations to themselves when the high performer was a female.

Independent allocations to self. The prediction was also partially supported by a significant Gender of Subject x Gender of High Performer interaction,  $F(1, 184) = 4.54$ ,  $p = .05$ , indicating that, similar to joint allocations, only men tended to allocate money differentially to themselves as a function of the gender of the high performer. Men tended to allocate a higher percentage of money to themselves when the high performer was female rather than male ( $\underline{M}$  = 86.35 v. 72.78,  $p \leq .01$ ).

Furthermore, similar to joint allocations, women allocated a higher percentage of the reward to themselves than did men ( $\underline{M}$  = 85.15 v. 72.78,  $p \leq .025$ ) in the presence of a male high performer. No differences were obtained between men's and women's allocations to themselves when the high performer was a female.

The prediction was partially supported by a significant Gender of Subject x Gender of Low Performer interaction,  $F(1, 184) = 5.84$ ,  $p \leq .025$ , indicating that women tended to allocate money

differentially to themselves as a function of the gender of the low performer. Women tended to allocate a higher percentage of money to themselves when the low performer was female rather than male ( $\bar{M} = 89.84$  v.  $78.47$ ,  $p \leq .05$ ). Women also allocated a higher percentage of the reward to themselves than did men ( $\bar{M} = 89.84$  v.  $76.43$ ,  $p \leq .01$ ) in the presence of a female low performer.

### Hypothesis 3

Hypothesis 3 predicted that when making equitable allocations men would attribute an employee's performance more to ability than effort, and women would not differentiate between ability and effort. Male and female subjects who made equitable allocations were selected from the sample. A Hotellings T2 test was conducted to determine if men and women who made equitable allocations attributed ability and effort differently for the ability and effort attribution measures. A main effect for Gender of Subject was only obtained when subjects making independent allocations attributed effort to low performers,  $F(1, 82) = 9.44$ ,  $p \leq .01$ . Women attributed a lack of effort as being more responsible for all low performers' performances than did men ( $\bar{M} = 4.29$  v.  $3.67$ ) (see Tables 6 and 7 for ability and effort attribution means).

Thus, the prediction that men and women would differentiate between ability and effort when making equitable reward allocations was not supported. Women were more apt to attribute low effort as a



Table 6

Ability and Effort Attribution Means for High and Low  
Performers in Joint Allocations

Gender of Subject	Ability for High Performer	Effort for High Performer	Ability for Low Performer	Effort for Low Performer
<u>Attribution percentages</u>				
Male	51.02	45.28	39.17	38.64
Female	51.91	44.85	36.77	42.97
<u>Causal attribution ratings</u>				
Male	4.87	4.49	3.89	3.72
Female	4.89	4.72	3.89	4.21

Table 7

Ability and Effort Attribution Means for High and Low  
Performers in Independent Allocations

Gender of Subject	Ability for High Performer	Effort for High Performer	Ability for Low Performer	Effort for Low Performer
<u>Attribution percentages</u>				
Male	50.07	44.59	37.17	37.52
Female	51.73	45.42	37.69	41.90
<u>Causal attribution ratings</u>				
Male	4.79	4.57	3.76	3.67a
Female	4.09	4.67	3.98	4.29b

Note: Means with different letters are significantly different from each other at  $p \leq .01$ .

cause for a low performer's performance than were men, but only when making independent allocations. No gender of subject differences were obtained for ability v. effort for the high performers, for ability for the low performers, or when subjects made independent allocations.

#### Hypothesis 4

Hypothesis 4 predicted that both men and women would attribute greater effort to male employees and lower effort to female employees, such that a Gender of High Performer x Gender of Low Performer interaction would be obtained. Separate 2 (Gender of High Performer) x 2 (Gender of Low Performer) ANOVAs were conducted for the four effort attribution measures (see Table 8 on the next page for the means as a function of gender of high and low performers).

Effort attribution percentage for high performers. A significant Gender of Low Performer x Gender of High Performer interaction was obtained,  $F(1, 188) = 6.12, p = .0143$ , when subjects were asked to determine how much of the high performer's performance was due to effort. Subjects attributed effort differentially to both male and female high performers when paired with male low performers (see Table 8), such that more effort was attributed to female high performers than to male high performers ( $M = 45.92$  v.  $41.83, p \leq .01$ ).

Table 8

Effort Attributions as a Function of Gender of High Performer  
and Gender of Low Performer

Gender of Low Performer	Gender of High Performer	High Performer Effort	Low Performer Effort
<u>Attribution percentages</u>			
Female	Female	44.17	38.54
Female	Male	45.29b	46.73c
Male	Female	45.92a	35.23
Male	Male	41.83ab	33.25c
<u>Causal attribution ratings</u>			
Female	Female	4.54e	3.71
Female	Male	4.64	3.98
Male	Female	4.79de	3.97
Male	Male	4.50d	3.83

Note: Means with the same letters are significantly different from each other at  $p \leq .05$ .

Furthermore, subjects attributed effort differentially to male high performers as a function of the gender of the low performer (see Table 8). More effort was attributed to male high performers when paired with female low performers than with male low performers ( $\underline{M}$  = 45.29 vs. 41.83,  $p \leq .025$ ).

Effort attribution percentage for low performers. A significant Gender of Low Performer x Gender of High Performer interaction was also obtained,  $\underline{F}$  (1, 188) = 6.17,  $p = .0139$ , when subjects were asked to determine how much of the low performer's performance was due to effort. Men and women attributed differing amounts of effort to male and female low performers when they were paired with a male high performer (see Table 8), such that subjects were more apt to attribute lower effort to female low performers than to male low performers ( $\underline{M}$  = 46.73 v. 33.25,  $p \leq .01$ ).

Furthermore, subjects attributed effort differentially to female low performers as a function of the gender of the high performer (see Table 8). Subjects tended to attribute female low performers as exhibiting much lower effort when paired with male high performers than with female high performers ( $\underline{M}$  = 46.73 v. 38.54,  $p \leq .01$ ).

Causal attribution ratings for high performers. A significant Gender of Low Performer x Gender of High Performer interaction was also obtained,  $\underline{F}$  (1, 188) = 5.00,  $p = .027$ , when subjects were asked to attribute the amount of effort responsible for a high performer's

performance. Subjects attributed effort as being differentially responsible for male and female high performers when paired with male low performers (see Table 8), such that effort was perceived as being more responsible for female high performers' performances than for male high performers' performances ( $\underline{M} = 4.79$  v.  $4.50$ ,  $p \leq .05$ ).

Furthermore, subjects attributed effort differentially to female high performers as a function of the gender of the low performer (see Table 8). Subjects perceived effort as being slightly more responsible for a female's performance when paired with male low performers than when paired with female low performers ( $\underline{M} = 4.79$  v.  $4.54$ ,  $p \leq .05$ ). No differences were obtained when subjects made casual attributions for low performers.

Thus, the prediction that more effort would be attributed to male employees and less effort to female employees was supported for low performers. The opposite finding was obtained for high performers. Furthermore, this finding was found to be influenced by the gender pairing of the high and low performers. Subjects attributed more effort to female high performers than to male high performers when paired with male low performers. They perceived this effort as being more responsible for female high performers' performances than for male high performers. Subjects attributed lower effort to female low performers than to male low performers when paired with male high performers.

They attributed this effort as being much lower when paired with male high performers than with female high performers.

#### Hypothesis 5

Hypothesis 5 predicted a main effect for the disclosure of allocation condition, such that subjects would choose an equitable allocation of rewards more often in the two privacy conditions and the disclosure to experimenter condition, and an equal allocation of rewards would be used more often in the disclosure to employee condition.

Two separate 4 (Disclosure of Allocation) x 3 (Choice of Allocation Strategy) chi-square analyses were conducted for both the joint and independent allocation conditions. The analyses indicated that the disclosure of allocation condition did not influence subjects' choices of allocation strategies under either joint,  $X^2(6) = 3.79$ , n.s. (see Table 9), or independent,  $X^2(6) = 5.41$ , n.s., (see Table 10) allocation conditions. Thus, the prediction was not supported in the present study. n.s., (see Table 10) allocation conditions. Thus, the prediction was not supported in the present study.

#### Hypothesis 6

Hypothesis 6 predicted that men and women would make different reward allocations depending upon a public and private context and

Table 9

Effect of Disclosure of Allocation Condition  
on Choice of Allocation Norm under Joint Allocation

Disclosure of Allocation	Allocation Norm		
	Equality	Compromise	Equity
Private (not see again)	22 (46%)	5 (10%)	21 (44%)
Private (see again)	18 (38%)	2 ( 4%)	28 (58%)
Disclose to employee	20 (42%)	4 ( 8%)	24 (50%)
Disclose to experimenter	24 (50%)	3 ( 6%)	21 (44%)



Table 10

Effect of Disclosure of Allocation Condition  
on Choice of Allocation Norm under Independent Allocation

Disclosure of Allocation	Allocation Norm		
	Equality	Compromise	Equity
Private (not see again)	25 (52%)	4 ( 8%)	19 (40%)
Private (see again)	22 (46%)	4 ( 8%)	22 (46%)
Disclose to employee	21 (44%)	7 (15%)	20 (41%)
Disclose to experimenter	24 (50%)	1 ( 2%)	23 (48%)

the gender of the recipient of the reward allocation, such that a Gender of Subject x Gender of Low Performer x Gender of High Performer x Disclosure of Allocation interaction was predicted for the four reward allocation measures. Separate 2 (Gender of Subject) x 2 (Gender of High Performer) x 2 (Gender of Low Performer) x 4 (Disclosure of Allocation) ANOVAs were conducted. As seen in Table 11, the predicted Gender of Subject x Gender of High Performer x Gender of Low Performer x Disclosure of Allocation interaction was not found to be significant for any of the reward allocation measures. Thus, the prediction was not supported by the results.

#### Hypothesis 7

Hypothesis 7 predicted that men and women with different levels of self-esteem would allocate money differently in public versus private conditions, such that a Gender of Subject x Self-Esteem Level x Disclosure of Allocation interaction was predicted. Two separate backwards stepwise regressions (one regression for the private conditions and one regression for the public conditions) were conducted on the six reward allocation measures to determine if the results supported the hypothesis. Subjects' mean self-esteem level was 33.09 with a standard deviation of 4.05.

For the stepwise regression for privacy conditions, gender of subject was coded -1 for males and +1 for females and the disclosure of allocation conditions were coded -1 for private

Table 11

Summary Table for Gender of Subject x Gender of  
 Low Performer x Gender of High Performer x Disclosure of  
 Allocation Condition Interactions

Variable	df	F-value
Difference between high and low performers allocations under joint allocation	(3, 160)	.75
Difference between high and low performers allocations under independent allocation	(3, 160)	1.70
Joint allocation to self	(3, 160)	1.15
Independent allocation to self	(3, 160)	.45

(not see again) and +1 for private (see again). Self-esteem remained as a continuous variable. As seen in Table 12, the results indicated that the predicted interaction was obtained only when subjects made independent allocations to the high performer and allocations to themselves. Significant regression equations were

$$Y = 42.28 + 27.2 (\text{Gender of Subject}) + 8.57 (\text{Disclosure of Allocation}) + 1.29 (\text{Self-Esteem}) + (-53.57) (\text{Gender of Subject}) (\text{Disclosure of Allocation}) + (-.16) (\text{Disclosure of Allocation}) (\text{Self-Esteem}) + (-.83) (\text{Gender of Subject}) (\text{Self-Esteem}) + 1.64 (\text{Gender of Subject}) (\text{Disclosure of Allocation}) (\text{Self-Esteem})$$

$$Y = 55.49 + 31.61 (\text{Gender of Subject}) + 21.49 (\text{Disclosure of Allocation}) + .78 (\text{Self-Esteem}) + (-52.1) (\text{Gender of Subject}) (\text{Disclosure of Allocation}) + (-.56) (\text{Disclosure of Allocation}) (\text{Self-Esteem}) + (-.93) (\text{Gender of Subject}) (\text{Self-Esteem}) + 1.51 (\text{Gender of Subject}) (\text{Disclosure of Allocation}) (\text{Self-Esteem})$$

for subjects making independent allocations to the high performer and themselves, respectively.

Table 13 indicates the amount of money allocated to the high performer as a function of gender of subject and self-esteem level, and Table 14 indicates the amount of money subjects allocated to themselves under an independent allocation condition. Figures 1 and 2 indicate the graph of the Disclosure of Allocation Condition x Self-Esteem interaction as a function of Gender of Subject for allocations to the high performer and allocations to themselves, respectively.

As seen in Figures 1 and 2, men's and women's independent allocations to the high performer and to themselves were influenced

Table 12

F-values for Regressions of Gender of Subject x Self-Esteem  
 x Disclosure of Allocation Interaction for Reward Allocation  
 Measures under Privacy Conditions

Reward allocation measures	F-value
Joint allocation to high performer	.49
Joint allocation to low performer	1.51
Joint allocation to self	.48
Independent allocation to high performer	10.43*
Independent allocation to low performer	.60
Independent allocation to self	4.56*

Note: \* indicates  $p \leq .05$ .

Table 13

Allocations to the High Performer as a Function of Gender of  
Subject, Self-Esteem, and Disclosure of Allocation Condition  
Under Independent Allocation Conditions

Disclosure of Allocation Performer	Gender of Subject	Self-Esteem Level	Amount of Money to High
Private (not see again)	Male	Low	66.74
		High	98.48
	Female	Low	84.88
		High	76.62
Private (see again)	Male	Low	86.62
		High	89.08
	Female	Low	80.88
		High	96.54

Table 14

Subjects' Allocations to Themselves as a Function of Gender of  
 Subject, Self-Esteem, and Disclosure of Allocation Condition  
 Under Independent Allocation Conditions

Disclosure of Allocation Condition	Gender of Subject	Self-Esteem Level	Amount of Money to Self
Private (not see again)	Male	Low	60.06
		High	90.65
	Female	Low	85.76
		High	76.89
Private (see again)	Male	Low	87.02
		High	84.07
	Female	Low	79.72
		High	86.23

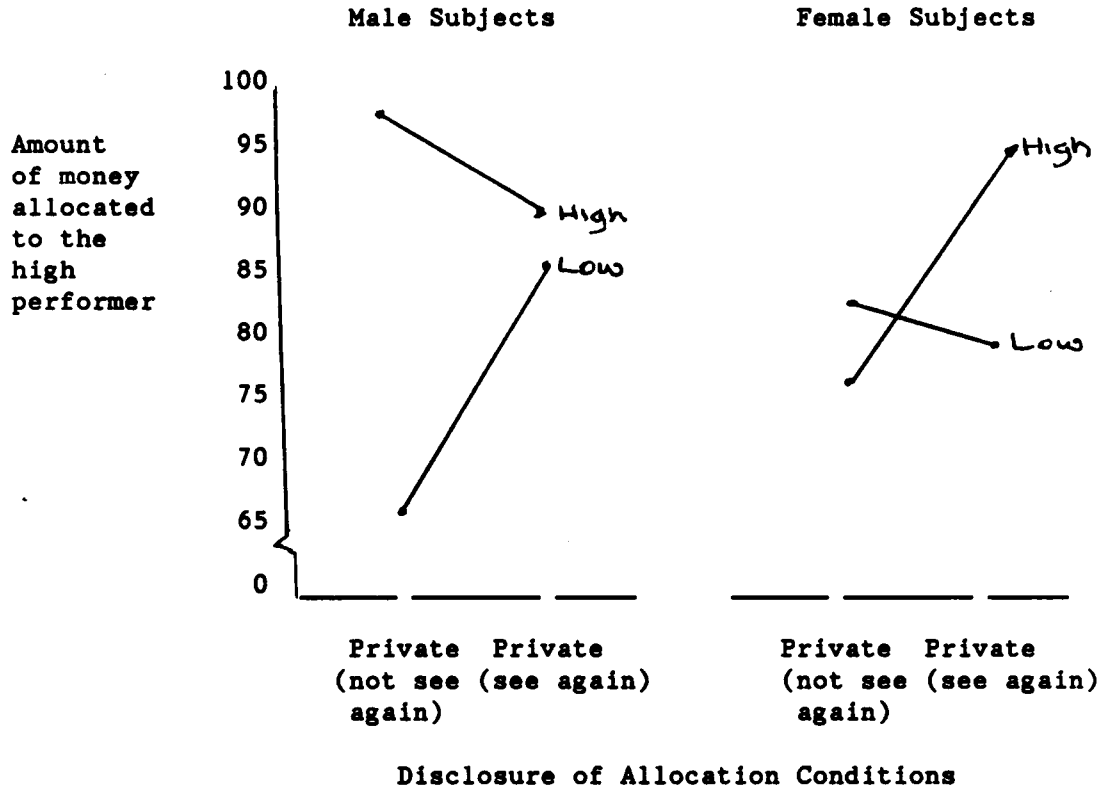


Figure 1. Graphs of Disclosure of Allocation x Self-Esteem Level interaction as a function of the Gender of Subject for the amount of money allocated to the high performer under an independent allocation condition.



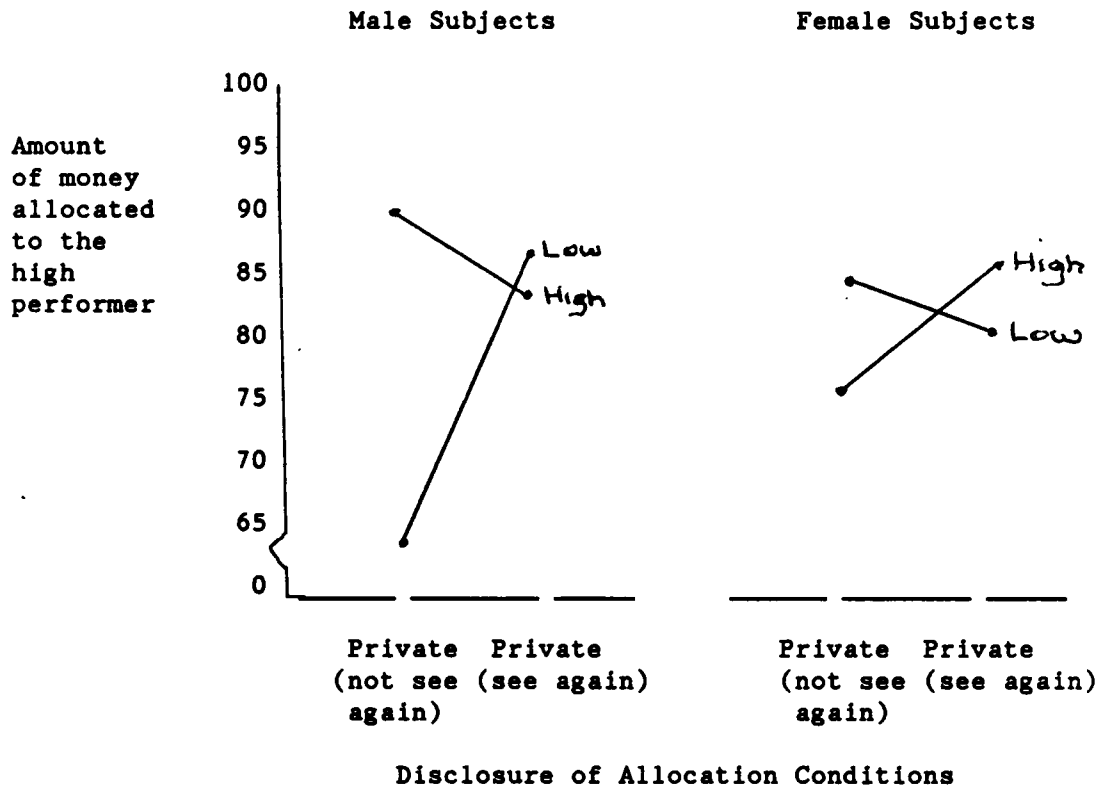


Figure 2. Graphs of Disclosure of Allocation x Self-Esteem Level interaction as a function of the Gender of Subject for the amount of money allocated to themselves under an independent allocation condition.

by level of self-esteem and disclosure of allocation condition. Men with differing levels of self-esteem allocated very differently as a function of the disclosure of allocation condition. Under a privacy condition in which men did not anticipate seeing the employees again and where subjects could allocate up to \$12,000 to each of the participants in the exchange, high self-esteem men allocated a much larger amount of money to themselves and to the high performer than did low self-esteem men. However, when men anticipated seeing the employees again, self-esteem level did not influence their allocations. In fact, when allocating to themselves under such a condition, low self-esteem men tended to allocate a more money to themselves than did high self-esteem men.

Women, on the other hand, had very different allocation patterns. Under extreme privacy conditions, low self-esteem women allocated more money to themselves and to the high performer than did high self-esteem women. However, when anticipating seeing the employees again, this pattern was reversed with high self-esteem women allocated a higher percentage of the money to themselves and the high performer than did low self-esteem women. Furthermore, when anticipating seeing the employees again, high self-esteem women allocated a much higher amount of money to the high performer than they allocated to themselves.

For the stepwise regression for the two public conditions, gender of subject was coded -1 for males and +1 for females and the disclosure of allocation conditions were coded -1 for disclosure to experimenter and +1 for disclosure to employee. Self-esteem remained as a continuous variable. As seen in Table 15, results indicate that the predicted interaction was obtained only when subjects made joint allocations to the high performer. The significant regression equation which was obtained when subjects made joint allocations to the high performer was

$$Y = 48.49 + 12.7 (\text{Gender of Subject}) + 13.07 (\text{Disclosure of Allocation}) + (-.21) (\text{Self-Esteem}) + (-15.5) (\text{Gender of Subject}) (\text{Disclosure of Allocation}) + (-.39) (\text{Disclosure of Allocation}) (\text{Self-Esteem}) + .36 (\text{Gender of Subject}) (\text{Self-Esteem}) + .47 (\text{Gender of Subject}) (\text{Disclosure of Allocation}) (\text{Self-Esteem})$$

Table 16 indicates the amount of money allocated to the high performer as a function of gender of subject and self-esteem level, and Figure 3 indicates the graph of the Disclosure of Allocation Condition x Self-Esteem interaction as a function of Gender of Subject for allocation to the high performer.

As seen in Figure 3, self-esteem level influenced the manner in which both men and women allocated a joint reward to high performers. High self-esteem men allocated a higher percentage of a reward when they anticipated discussing their allocation with the experimenter than with the employees. Low self-esteem men allocated in the opposite manner. Low self-esteem men allocated a much larger

Table 15

F-values for Regressions of Gender of Subject x Self-Esteem  
 x Disclosure of Allocation Interaction for Reward Allocation  
 Measures under Public Conditions

Reward allocation measures	F-value
Joint allocation to high performer	4.26*
Joint allocation to low performer	.15
Joint allocation to self	2.52
Independent allocation to high performer	2.44
Independent allocation to low performer	.66
Independent allocation to self	.75

Note: \* indicates  $p \leq .05$ .

Table 16

Allocations to the High Performer as a Function of Gender of  
Subject, Self-Esteem, and Disclosure of Allocation Condition  
Under Joint Allocation Condition

Disclosure of Allocation	Gender of Subject	Self-Esteem Level	Amount of Money to
High Performer			
Disclose to experimenter	Male	Low	41.02
		High	43.43
	Female	Low	40.22
		High	40.77
Disclose to employee	Male	Low	48.30
		High	36.56
	Female	Low	40.00
		High	41.96

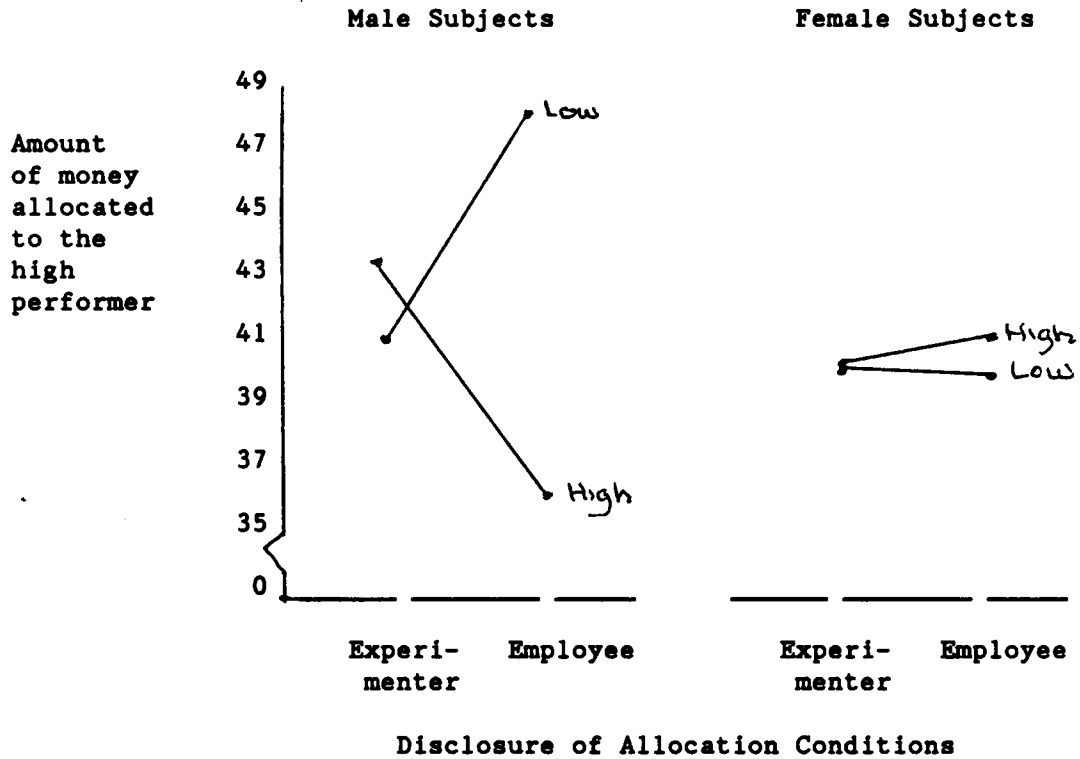


Figure 1. Graphs of Disclosure of Allocation x Self-Esteem Level interaction as a function of the Gender of Subject for the amount of money allocated to the high performer under a joint allocation condition.

percentage of the money to the high performer when anticipating interaction with him or her than did high self-esteem men.

Self-esteem did not seem to influence women's joint allocations to high performers to a great extent. When anticipating discussing their allocation with the experimenter, high and low self-esteem women allocated very similarly. However, when anticipating discussing their allocation decision with the employees, high self-esteem women tended to allocate a slightly larger amount of money to the high performer than did low self-esteem women.

Thus, the prediction that men and women with different levels of self-esteem would allocate money differently in public versus private conditions was supported. The results indicate that self-esteem influenced men's joint allocations to a much larger degree than women's allocations in the public conditions. In the private conditions, self-esteem had a profound influence on both men's and women's independent allocations to themselves and to the high performer.

#### Other Factors Affecting Subjects' Allocation Decisions

Separate stepwise regression procedures for men and women were performed to determine what factors may have influenced subjects' reward allocations for the six reward allocation measures. Variables were allowed to enter the model if they reached a  $p \leq .10$

level of significance. R-squares (R2) and standardized regression coefficients (Beta) were computed.

Joint allocations to high performers. The stepwise regression procedure indicated that women's joint allocations to the high performers tended to be higher when they were concerned with avoiding conflict with the high and low performers ( $F(1, 93) = 8.50, p \leq .01; R2 = .08, Beta = .28$ ).

Men's joint allocations to the high performer tended to be lower when they were concerned with getting to know the two employees better ( $F(1, 94) = 3.71, p \leq .09; R2 = .03, Beta = -.17$ ).

Joint allocations to low performers. The stepwise regression procedure indicated that women's joint allocations to the low performers were higher when they were concerned with maintaining a friendly atmosphere ( $F(1, 93) = 4.12, p \leq .05; R2 = .04, Beta = .21$ ).

Men's joint allocations were higher when they were concerned with how the low performer would feel about their allocation decision ( $F(1, 94) = 6.93, p \leq .01; R2 = .01, Beta = .10$ ).

Joint allocations to self. The stepwise regression procedure indicated that women's joint allocation decisions to themselves were higher when they were concerned with avoiding unpleasantness with the employees ( $F(1, 93) = 5.00, p \leq .05; R2 = .05, Beta = .23$ ).



Men's joint allocations to themselves were lower when they were concerned with how the low performer would feel about the allocation decision ( $F(1, 94) = 6.67, p \leq .025; R^2 = .07, \text{Beta} = -.26$ ).

Independent allocations to high performers. The stepwise regression procedure indicated that women's independent allocations to high performers were lower when they were concerned with avoiding unpleasantness ( $F(1, 93) = 3.50, p \leq .06; R^2 = .04, \text{Beta} = -.19$ ).

Men's independent allocations to the high performers were lower when they were concerned with how the low performer would feel about the allocation decision ( $F(2, 94) = 4.84, p \leq .05$ ), but were higher when they were concerned with making a favorable impression on the experimenter ( $F(2, 94) = 4.55, p \leq .05; R^2 = .09, \text{Beta} = -.22$  and  $\text{Beta} = .21$ , respectively).

Independent allocations to low performers. The stepwise regression procedure indicated that women's independent allocation decisions to low performers were higher when they were concerned with maintaining a friendly atmosphere ( $F(1, 93) = 4.21, p \leq .05; R^2 = .04, \text{Beta} = .21$ ).

Men's independent allocations were higher when they were concerned with making a favorable impression on the experimenter ( $F(1, 94) = 3.85, p \leq .05; R^2 = .04, \text{Beta} = .20$ ).

Independent allocations to self. The stepwise regression procedure indicated that when making an independent allocation to

themselves, no variables met the significance level for women's allocation decisions.

Men's independent allocations to themselves were lower when they were concerned about how the low performer would feel ( $F(1, 94) = 3.05, p \leq .08; R^2 = .03, \text{Beta} = -.18$ ).

#### Subjects' Reasons for Allocation Strategies

Subjects were also asked to indicate their reasons for their allocation of the rewards in both the joint and independent allocation situations. Table 17 indicates, in terms of percentages, the reasons subjects gave for allocating the money in the manner that they did. As seen in Table 17, subjects who noted they should receive the most amount of money indicated that this opinion was based upon their role as the responsible supervisor. Subjects noted that high performers deserved more money than low performers as a function of their outstanding performance. Finally, subjects noted that low performers should receive less money as a function of their low performance, and this amount should serve as a performance incentive.

Subjects who gave high performers more money noted that the high performers deserved it based on their outstanding performance. Subjects noted that they should receive more money than low performers because they were the responsible supervisor,

Table 17

## Subjects' Reasons for Allocation Strategies

Reason	Type of Allocation Decision	
	Joint	Independent
High performer most, subject, and low performer	27%	22%
Subject most, high performer, and low performer	33%	21%
Give equal amounts to all three	3%	8%
High performer most, low performer, and subject	9%	8%
Divide equally between subject and high performer, low performer	19%	36%
Miscellaneous reasons	9%	5%

but low performers should receive money as an incentive for improving their performance.

Subjects who gave equal amounts to themselves and the high performer noted that the high performer should not make more than the supervisor. Additionally, a smaller amount should be allocated to the low performer as an incentive.

## DISCUSSION

The present research examined the impact of situational factors and gender of co-worker on the allocations of men's and women's reward allocations between themselves and others. Results of this research suggest that previously observed differences between men's and women's allocations may not reflect true underlying differences between the genders in terms of their preferences for allocation strategies. Rather, allocation strategies appear to vary as a function of gender of the recipient, type of allocation decision, self-esteem levels of the subjects, and the disclosure of the allocation decision, especially in situations which arouse self-presentational concerns.

Contrary to predictions that men would allocate rewards more equitably and women would allocate rewards more equally, men and women did not behave in accordance with traditional norms and patterns of allocations found in the past literature. Rather, both men and women tended to allocate rewards either equitably or using a compromise between equity and equality.

Support for this finding exists in previous research (Baker, 1974; Greenberg, 1978a; Leventhal et al., 1972; Leventhal & Whiteside, 1972) demonstrating that gender differences tend not to occur when subjects allocate to others, and are not themselves the recipients of the rewards. The logic behind this argument is

that in such a situation, subjects have no self-interest in the allocation because they do not receive a part of the reward. However, the results of the present research suggest that when subjects are asked to allocate rewards to themselves and others, both men and women tend to allocate rewards more equitably reflecting their perception of equity as the generally acceptable societal norm for allocating rewards.

A reason as to why gender differences in subjects' choices of allocation strategies were not obtained may have been due to subjects receiving extensive performance information. Research (Hall & Hall, 1977; Rosen & Jerdee, 1974; Terborg & Ilgen, 1975) has indicated that the effect of bias and stereotyping is more salient when little is known about the person. Subsequently, increasing information about an employee's performance tends to reduce evaluation bias. Hall & Hall (1977) found that no gender differences were obtained in their study when subjects were presented with an actual performance sample rather than a brief resume. They suggest that this information actually reduced the extent to which subjects relied upon gender as the basis of their evaluation. Thus, a reason for why no gender differences were obtained in subjects' choice of allocation norms may have been because subjects had access to actual performance samples of the employees they were rating, and did not have to rely upon stereotypes when allocating rewards.

An interesting finding was that the type of allocation decision (joint v. independent) had an impact only upon men's and women's allocation strategies to themselves. The findings suggest that when men and women were in a supervisory role in a relationship and allocating money to themselves and to others differing in terms of input levels, both men and women preferred to use equity or a compromise between equity and equality when allocating money in a joint reward allocation situation (splitting a reward between themselves and others). This suggests that contrary to much of the reward allocation literature, both men and women took into account the inputs of the recipients of their allocation when allocating joint rewards.

Similarly, when men and women allocated rewards in an independent allocation situation (subjects could allocate up to the same amount to themselves and others), there was an overall trend for men to employ the equality norm more than women. However, in general, men and women were more apt to use the equity norm or a compromise between equity and equality to allocate rewards. These findings lend support to the Kidder et al. (1977), Major and Adams (1983; 1984), and Evensen (1987) studies in which both men and women tended to allocate rewards equitably. Furthermore, the results suggest that previous studies which have indicated that women allocate rewards more equally and ignore differential inputs when allocating rewards may be somewhat misleading. Thus, both men

and women appeared to consider the inputs of the two co-workers when making their allocation decisions and to endorse the equity principle when allocating rewards.

The prediction that men's allocations were more influenced by the gender of their co-workers was partially supported. When men were in the position of allocating money to themselves in either a joint or independent allocation situation, their allocations to themselves were influenced by both male and female high performers. Men were more apt to take into account the amount of money they planned on allocating to the high performer when deciding on the amount of money they should allocate money to themselves. Specifically, men allocated more money to themselves when allocating to a female high performer than to a male. This finding is contrary to research (Kahn et al., 1980a; Messe & Callahan-Levy, 1979; Mikula, 1972) demonstrating that men tend to give themselves less in the presence of a female than a male. It appears that in the present study, men, who gave themselves more when the high performer was a female, may have been actually giving less to high performing females and more to males.

Contrary to the hypothesis, women's allocations to themselves were also found to be influenced by the gender of the high performer, but only by male high performers when women made both joint and independent allocations to themselves. Women's



allocations to themselves were only influenced by male high performers, and, in general, their allocations to themselves tended to be higher than were men's. This finding is also contrary to Callahan-Levy & Messe's (1979) study suggesting that women tend to allocate less money to themselves than men in joint allocation conditions. In the present research, women may have perceived more of a link between their job as a supervisor and their pay than did men.

Another explanation for these findings may be that men and women viewed opposite-gender high performers as competitors. Carles and Carver (1979) demonstrated that men and women allocated more money to themselves when they perceived the other as a competitor. Men may have allocated more money to themselves in the presence of high performing females because they perceived them as competitors. Similarly, women may also have perceived high performing males as competitors, and thereby allocated more money to themselves. Thus, it appears that both men and women perceived the recipients of their allocations very differently, and these differences may have mediated gender differences in allocations to themselves. Women may have also allocated more money to themselves in the presence of a low performing female, because they perceived that they deserved more money.

It is interesting that no differences were obtained for subjects' allocations to either high or low performers. Subjects

may have felt that their allocations in both joint and independent allocation situations were high enough so they did not have to worry about justifying their allocations to either the experimenter or to the employees. Thus, contrary to past research, the present study did not find that men's or women's allocations to high performers were influenced by either the private or public disclosure conditions of their allocations. It was expected that subjects who anticipated interaction with either the employees or the experimenter would still feel they had to prepare themselves to justify their allocation rules. Therefore, the public disclosure conditions should have predisposed subjects to favor more equitable allocations and no interaction would have favored equal allocations.

An explanation for the lack of a significant finding of disclosure of allocation condition may be that when subjects are in the position of allocating up to the same amount of money to themselves and others, to whom they may have to disclose their allocation to does not have an affect. An examination of subjects' allocation means indicates that when subjects allocated rewards independently they allocated a higher percentage of the reward to high performers and a lower percentage of the reward to low performers. Thus, in all the disclosure conditions, subjects may have found it easier to endorse the equity principle.

A further clarification for this puzzling finding may be found in the reasons that subjects gave for their allocations.

The reasons subjects gave did not differ across allocation conditions or gender. In general, subjects tended to either give: (1) more money to the high performer, followed by themselves, and the low performer; (2) more money to themselves, followed by the high performer, and the low performer; or (3) dividing the money equally between themselves and the high performer, followed by the low performer. All subjects who allocated in these three ways felt that high performer should receive more money because of hard work and ability, and the low performer should get enough of a reward to act as an incentive to improve performance. It is also interesting that when subjects had the ability to give everyone the same amount (\$12,000), only 16 subjects did so citing the reason that since the money was available it should all be distributed and it was a team effort. Furthermore, of these 15 subjects, 11 were men and 5 were women.

It is also important to note that under all conditions, subjects participated in large groups and were only asked to imagine their co-workers. Under the privacy conditions, subjects were given a code number and told that their allocations would be made in total anonymity, and therefore, they did not have confront either the employees or the experimenter. Thus, under such conditions, self-presentational concerns were minimized. Furthermore, an explanation for the lack of significance of the disclosure of allocation condition may have been the result of the

paper-people methodology that was used. Subjects were only asked to imagine themselves as the supervisor and did not actually meet any of the employees they were supervising. Perhaps had subjects met the employees before beginning the experiment, the disclosure of allocation condition manipulation may have had more of an effect. The fact that subjects did not differ in their choice of allocation strategies in general, may have influenced the fact that subjects did not differ in their allocation strategies as a function of the disclosure of allocation condition.

One puzzling finding is that subjects' attributions of effort and ability did not seem to correspond to subjects' allocations to high and low performers. Furthermore, no support was obtained for the hypothesis that men would differentiate between ability or effort when making equitable allocations and women would not differentiate between ability or effort. The only finding to reach significance was women were more apt to attribute a low performer's performance to more of a lack of effort than were men.

An explanation for the lack of support for this hypothesis may certainly be the result of men's and women's allocations not differing in terms of allocation strategies. Reis and Jackson (1981) also failed to find support for their prediction of relating cognitions to allocations. Furthermore, other studies linking attributions to allocations have indicated a definite difference between men's and women's choice of allocation strategies.

Additionally, many of these studies (Cohen, 1974; Greenberg, 1978b, 1980; Larwood et al., 1979; Wittig et al., 1981) have demonstrated that performance attributions provided by the experimenter can affect allocation behavior. Conversely, researchers (Greenberg, 1978c; Kahn et al., 1980a; Reis & Jackson, 1981) who have measured men's and women's attributions for their own performances have found no gender differences in attributions even though gender differences in allocations were observed. Thus, given other evidence for attribution differences, this lack of a relationship is puzzling.

The prediction that both men and women would attribute more effort to male employees and less effort to female employees was only partially supported. This prediction was influenced by the gender pairing of the high and low performers. Men and women attributed more effort to high performers when they were paired with opposite-gender low performers, and less effort to low performers when paired with opposite-gender high performers. Thus, similar to past research (Kahn et al., 1980a), it appears that female low performers are seen to exhibit much less effort when working with a male high performer, but male low performers exhibit more effort. Furthermore, one reason that male subjects may have allocated more money to themselves in the presence of a female high performer may be understood in light of the fact that male subjects attributed more effort to female high performers than to male high performers.

Thereby, assuming that high effort on the part of female high performers should result in male subjects allocating more money to themselves as they were the supervisor.

Conversely, female subjects may have allocated more money to themselves in the presence of a male high performer since male high performers were attributed with less effort, female subjects may have felt that they deserved more money to take up the slack in the male high performer's performance.

A variety of measures were included in the present study to lend some understanding as to the allocation differences found in the present study, and to assess the relative importance of several intervening processes. Self-esteem was found to be a factor that influenced the amount of money subjects allocated to high performers and to themselves.

Overall, in the two privacy conditions, self-esteem levels resulted in men allocating money similarly to themselves and to the high performers. It is interesting to note that when men were in the position of anticipating seeing the employees again, high and low self-esteem men allocated similar percentages of money when allocating to themselves and to the high performer. Moreover, low self-esteem tended to allocate a slighter higher percentage to themselves than did men with high self-esteem. However, when their allocations were in total privacy, low self-esteem men tended to allocate a far lower percentage of money than did high self-esteem

men. Perhaps, low self-esteem men thought that it was expected of them to allocate more money when they anticipated seeing the employees again. High self-esteem men may have thought that if they have to work with the high performer again, he/she would expect a similar bonus the next time and felt more comfortable lowering the percentage.

It is also interesting that in the two privacy conditions, when given the opportunity to allocate a high percentage of money to themselves in private, low self-esteem chose to allocate a lower amount of money in the complete privacy condition than in the privacy condition in which they anticipated seeing the employees again. Low self-esteem men may have thought that they really did not deserve a high amount of money, but when anticipating working with the high performers again, gave themselves a much larger amount.

Women, on the other hand, tended to allocate similarly to themselves and the high performer when their allocations were in complete privacy. However, when they anticipated seeing the high performer again, high self-esteem women were more apt to allocate a far higher percentage of money to the high performer than low self-esteem women.

It is interesting to note that in both conditions above, subjects were able to allocate up to \$12,000 to the high performers and to themselves. However, as Kidder et al. (1977) have

demonstrated, perhaps low self-esteem women felt more comfortable allocating more money when they allocated in total privacy because they were able to shed the limitations of their sex-role socialization. Similarly, high self-esteem women may have felt that the high performer truly did not deserve as much money and was able to allocate in such a manner when allocating in total privacy.

Finally, in the public conditions, high self-esteem men allocated more money to the high performer when they expected to discuss their allocation with the experimenter than with the employees. They may have felt less secure in allocating less money when having to justify the allocation to a female experimenter than to the employees. However, it appears that low self-esteem men felt less secure about justifying their allocation to the employees, hence they allocated a higher percentage to the high performer when justifying the allocation to the employees than to the experimenter.

Women, regardless of self-esteem level, allocated similarly when justifying their allocation to the experimenter. However, when anticipating a justification to the employees, high self-esteem women allocated a slighter higher percentage than did low self-esteem women.

Thus, these findings indicate that the disclosure of the allocation condition as well as the self-esteem level of the allocator influences the amount of money that allocators will allocate to themselves and to a co-worker. Furthermore, the



findings support and extend previous research (Callahan-Levy & Messe, 1979; Chesler & Goodman, 1976; Lenney, 1977) suggesting that when high and low self-esteem men and women are in the position of interacting with the recipients of their allocations in the future, they may allocate similarly.

Finally, subjects were asked to answer several questions designed to assess the relative importance of intervening processes influencing their reward allocations. The results indicated that similar allocation situations tended to elicit different motivations in allocation behavior for both men and women. Contrary to previous research (Austin & McGinn, 1977; Deutsch, 1975; Sampson, 1975; Leventhal, 1976) suggesting that women are more concerned with the process of allocations than are men, men's allocations were also found to be influenced by the process and consequence of their allocation decision.

Two factors seemed to overwhelmingly influence how men allocated rewards: concern for the low performer and making a favorable impression on the experimenter. Men were very concerned with the consequences their allocation decision had on the low performer. This was especially true in joint allocation conditions where an increased amount of money given to one participant would result in less money to the other participants in the exchange.

However, when making independent allocations where allocations to one participant was not dependent upon the allocations to the

others, men were concerned about making a favorable impression on the experimenter. Thus, it appears that when making independent allocations to high and low performers, men took into account the scrutiny of the female experimenter and may have wanted to obtain some social approval from her.

Women's allocations, on the other hand, were found to be more influenced by avoiding conflict and unpleasantness, and maintaining a friendly atmosphere. Only when women were making independent allocations to high performers did avoiding unpleasantness result in women lowering their allocations. Women may have felt that they were making relatively high allocations and did not need to be concerned about avoiding unpleasantness with the high performers.

Thus, contrary to past research (Austin & McGinn, 1977; Kahn et al., 1977), men as well as women were concerned with the employee's reactions to their allocation decision. These findings suggest that the social motivations with respect to men's and women's allocations are different. Furthermore, they suggest that women were more likely than men to approach the interaction with interpersonal concerns such as maintaining a friendly atmosphere, and trying to make the situation as pleasant and free of conflict as possible for both the high and low performers. In contrast, men appear to approach the allocation situation in terms of concern for the low performer as well as concern about attaining social approval from the experimenter.

## CONCLUSION

Allocations that represented either equity or a compromise between equity and equality were generally preferred by subjects in this research. Researchers (Leventhal, 1976; Sampson, 1975) have suggested that reward distributions depend on goals or motives that are important to the allocators. Equal allocations are consistent with a motive to promote positive interpersonal relations among co-workers, whereas equitable allocations tend to be more compatible with motivations to increase productivity. The results of the present study suggest that subjects' motives tended to be more congruent with maintaining fairness and promoting productivity. It appears that both men's and women's concerns were influenced more by maintaining fairness to their employees. More than likely, the fact that no gender of subject differences in allocation strategies were found supports previous research suggesting that when allocation tasks take place in organizational settings, both men and women are more apt to use more equitable allocations to distribute rewards (Leung & Park, 1986).

The importance of other characteristics such as gender of the high performer and self-esteem level of the subject appear to exert an influence upon subjects' choices of allocation strategies to distribute rewards as does gender of the subject. The results in this research support previous assumptions that the more egalitarian

allocations of women observed in previous research (Kidder et al., 1977) may be somewhat misleading. Thus, consistent with the findings of Major and Adams (1983), evidence in the present research did not demonstrate that gender of subject directly influenced subjects' choices of equality or equity. The inconsistency in these results with respect to the disclosure of the allocation condition may encourage further research to identify allocator and situational characteristics, which may influence allocation behavior, as well as to determine specifically how these characteristics may interact in their impact upon allocation behavior.

These findings suggest that women and men typically allocate more similarly to others, but differently to themselves. However, these findings were moderated by the gender of co-worker and the salience of self-presentational concerns. These findings also suggest that gender effects are not due solely to the preferences of men and women, nor are they due solely to differences in the situations people find themselves in. There is evidence that men and women respond both differently and similarly to different situations. Further research is needed that goes beyond the role-playing methodology used in this study to determine the processes and mechanisms by which situational and co-worker characteristics elicit subjects' choice of allocation strategies. The implications of the present research suggest that the gender of high performing recipients appears to constitute a powerful situational demand, and

that situations do not seem to present such strong demands upon an individual's behavior. Additionally, previous research indicating a strong gender of subject difference may have overestimated the extent of gender differences in allocation research. Subsequently, "justice is apparently defined, or justified, by individuals fitting the 'appropriate' rule to the demands of the situation (Austin & McGinn, 1977, p. 393).

Some limitations exist to generalizing the present findings. The number of subjects per cell was low, increasing the number may lead to more significant results. Selecting subjects based upon their self-esteem level and manipulating this variable may shed more light upon how subjects' self-esteem may further influence reward allocations. Finally, the results imply that future research into equity and equality should extend beyond the paper-people methodology to examine the effects of personal contact between the allocator and the recipients.

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**APPENDIX A**

**Experimental Manipulations**

Private (not see again) condition:

IMAGINE YOURSELF AS THE PERSON DEPICTED IN THE FOLLOWING PARAGRAPH:

You are the supervisor of a market research group, comprised of 10 individuals, in a company called New Sales Research. Every six months performance reviews on all your employees are conducted to determine a merit increase or bonus for the past 6 months of work. As you are the supervisor of this office, you have already completed a performance review of the other employees in your group and distributed their bonuses, and now you are going to be reviewing the performance of your last two employees, \_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ and \_\_\_\_\_ have been working on a project, which you have been supervising, analyzing the sales market for the potential of introducing a new magazine.

The project involves:

- (1) researching the product and various geographical areas for testing the market;
- (2) developing and conducting market research surveys for the different geographical areas;
- (3) coding and analyzing the results; and
- (4) presenting the findings before management and your client.

During the course of the past six months, you have been informally reviewing both \_\_\_\_\_'s and \_\_\_\_\_'s performance by weekly progress reports and monthly progress reviews with each of them individually. It is now time for you to formally conduct a review of their performance for their 6-month salary review and distribute money to them.

It is the end of the project and both \_\_\_\_\_ and \_\_\_\_\_ will be changing to another part of the company in another geographic area. You will not be seeing them again.

Following this page are the performance reviews for both \_\_\_\_\_ and \_\_\_\_\_ which you have completed. As you can see from the following performance reviews, \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_ on a scale of 1 to 4 (1=poor performance, 2=performance needs improvement, 3=good performance, 4=outstanding performance) and \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_

\_\_\_\_\_. These ratings and the information in the performance reviews are very important because you are to use them as a guideline for deciding how much of a bonus to give to \_\_\_ and \_\_\_\_\_.

Your manager has informed you that because the working group that you supervise has been very successful and has produced such high quality work, you have \$12,000 to divide between yourself, \_\_\_\_\_, and \_\_\_\_\_ as a bonus to your salaries. Your manager has told you that you can divide this money any way that you wish.

The company policy is that all bonuses are considered to be distributed in private and confidential.

Private (see again) condition:

IMAGINE YOURSELF AS THE PERSON DEPICTED IN THE FOLLOWING PARAGRAPH:

You are the supervisor of a market research group, comprised of 10 individuals, in a company called New Sales Research. Every six months performance reviews on all your employees are conducted to determine a merit increase or bonus for the past 6 months of work. As you are the supervisor of this office, you have already completed a performance review of the other employees in your group and distributed their bonuses, and now you are going to be reviewing the performance of your last two employees, \_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ and \_\_\_\_\_ have been working on a project, which you have been supervising, analyzing the sales market for the potential of introducing a new magazine.

The project involves:

- (1) researching the product and various geographical areas for testing the market;
- (2) developing and conducting market research surveys for the different geographical areas;
- (3) coding and analyzing the results; and
- (4) presenting the findings before management and your client.

During the course of the past six months, you have been informally reviewing both \_\_\_\_\_'s and \_\_\_\_\_'s performance by weekly progress reports and monthly progress reviews with each of them individually. It is now time for you to formally conduct a review of their performance for their 6-month salary review and distribute money to them.

The project will continue for another 6 months with \_\_\_\_\_ and \_\_\_\_\_ continuing to work on the project. You will be seeing them on a daily basis.

Following this page are the performance reviews for both \_\_\_\_\_ and \_\_\_\_\_ which you have completed. As you can see from the following performance reviews, \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_ on a scale of 1 to 4 (1=poor performance, 2=performance needs improvement, 3=good performance, 4=outstanding performance) and \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_



\_\_\_\_\_. These ratings and the information in the performance reviews are very important because you are to use them as a guideline for deciding how much of a bonus to give to \_\_\_ and \_\_\_\_\_.

Your manager has informed you that because the working group that you supervise has been very successful and has produced such high quality work, you have \$12,000 to divide between yourself, \_\_\_\_\_, and \_\_\_\_\_ as a bonus to your salaries. Your manager has told you that you can divide this money any way that you wish.

The company policy is that all bonuses are considered to be distributed in private and confidential.

Disclose to experimenter condition:

IMAGINE YOURSELF AS THE PERSON DEPICTED IN THE FOLLOWING PARAGRAPH:

You are the supervisor of a market research group, comprised of 10 individuals, in a company called New Sales Research. Every six months performance reviews on all your employees are conducted to determine a merit increase or bonus for the past 6 months of work. As you are the supervisor of this office, you have already completed a performance review of the other employees in your group and distributed their bonuses, and now you are going to be reviewing the performance of your last two employees, \_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ and \_\_\_\_\_ have been working on a project, which you have been supervising, analyzing the sales market for the potential of introducing a new magazine.

The project involves:

- (1) researching the product and various geographical areas for testing the market;
- (2) developing and conducting market research surveys for the different geographical areas;
- (3) coding and analyzing the results; and
- (4) presenting the findings before management and your client.

During the course of the past six months, you have been informally reviewing both \_\_\_\_\_'s and \_\_\_\_\_'s performance by weekly progress reports and monthly progress reviews with each of them individually. It is now time for you to formally conduct a review of their performance for their 6-month salary review and distribute money to them.

Following this page are the performance reviews for both \_\_\_\_\_ and \_\_\_\_\_ which you have completed. As you can see from the following performance reviews, \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_ on a scale of 1 to 4 (1=poor performance, 2=performance needs improvement, 3=good performance, 4=outstanding performance) and \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_. These ratings and the information in the performance reviews are very important because you are to use them as a guideline for deciding how much of a bonus to give to \_\_\_\_\_ and \_\_\_\_\_.

Your manager has informed you that because the working group that you supervise has been very successful and has produced such high quality work, you have \$12,000 to divide between yourself, \_\_\_\_\_, and \_\_\_\_\_ as a bonus to your salaries. Your manager has told you that you can divide this money any way that you wish.

The company policy is that your manager is informed as to how you distributed the money. The experimenter will be acting as your manager. You will be making appointments after you complete this part of the study to explain to the experimenter why you divided the money as you did.

Disclose to employee condition:

IMAGINE YOURSELF AS THE PERSON DEPICTED IN THE FOLLOWING PARAGRAPH:

You are the supervisor of a market research group, comprised of 10 individuals, in a company called New Sales Research. Every six months performance reviews on all your employees are conducted to determine a merit increase or bonus for the past 6 months of work. As you are the supervisor of this office, you have already completed a performance review of the other employees in your group and distributed their bonuses, and now you are going to be reviewing the performance of your last two employees, \_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ and \_\_\_\_\_ have been working on a project, which you have been supervising, analyzing the sales market for the potential of introducing a new magazine.

The project involves:

- (1) researching the product and various geographical areas for testing the market;
- (2) developing and conducting market research surveys for the different geographical areas;
- (3) coding and analyzing the results; and
- (4) presenting the findings before management and your client.

During the course of the past six months, you have been informally reviewing both \_\_\_\_\_'s and \_\_\_\_\_'s performance by weekly progress reports and monthly progress reviews with each of them individually. It is now time for you to formally conduct a review of their performance for their 6-month salary review and distribute money to them.

Following this page are the performance reviews for both \_\_\_\_\_ and \_\_\_\_\_ which you have completed. As you can see from the following performance reviews, \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_ on a scale of 1 to 4 (1=poor performance, 2=performance needs improvement, 3=good performance, 4=outstanding performance) and \_\_\_\_\_ received an overall performance rating of \_\_\_\_\_. These ratings and the information in the performance reviews are very important because you are to use them as a guideline for deciding how much of a bonus to give to \_\_\_\_\_ and \_\_\_\_\_.

Your manager has informed you that because the working group that you supervise has been very successful and has produced such high quality work, you have \$12,000 to divide between yourself, \_\_\_\_\_, and \_\_\_\_\_ as a bonus to your salaries. Your manager has told you that you can divide this money any way that you wish.

The company policy is that the people you give money to are to be informed as to how you distributed the money. After you complete this part of the study, you will be meeting with the two employees during the times you set up to explain to them why you divided the money as you did.



## EXEMPT NON-SUPERVISORY PERFORMANCE REVIEW (6-MONTH)

**Name:** Mary

**Title:** Market Research Analyst

**Dates of Review:** July 1 - December 31, 1986

**Date:** January 15, 1987

The purpose of this performance review is to apprise you of the way in which the Company views your performance and to indicate any areas of improvement. Nothing set forth in this evaluation shall be construed as a contract of employment.

Instructions: Please complete each sentence below. Cite specific examples that support the rating given. Use additional paper if necessary.

### PRESENT DUTIES AND RESPONSIBILITIES:

The responsibilities of the job of a market research analyst include: (1) coordination of the scheduling, mailing, and return of market research surveys; (2) coding and data preparation; (3) computer programming and statistical analyses; (4) preparation of draft reports; and (5) interfacing with customers and other technical personnel to help discuss goals, requirements, and problems.

**QUALITY OF WORK:** Consider ability to produce work free from errors, the grade or caliber of work compared to what may reasonably be expected.

Performance Level: 2

#### COMMENTS:

Mary produces research products, plans, and statistical analyses that have needed some corrections due to errors she has made. Mary has had some corrections made to her draft reports, but recently her error rate and the quality of her work has improved.

**PLANNING AND ORGANIZING:** Consider how well job activity is planned and organized.

Performance Level: 1.5

#### COMMENTS:

Mary has, at times, appeared somewhat disorganized. Mary tends to take on too much work, which results in her not fulfilling all the responsibilities and duties of her job. She attempts to have all her work done by the scheduled completion dates, but unfortunately, more than once, she has had to have an extension of a project completion date.

**JUDGMENT/DECISION MAKING:** Consider ability to gather facts, evaluate situations, and reach practical solutions.

Performance Level: 2

#### COMMENTS:

Mary demonstrates an adequate ability to recognize problems, and in general, solves them before they become bigger problems. However, at times, she has not been informed as she should be to the needs of the client and his/her product which has resulted in her making a less than fully informed decision.

**COMMUNICATIONS:** Consider ability to express thoughts logically and accurately in presentations and reports. Consider effectiveness in meetings and conferences.

Performance Level: 3

#### COMMENTS:

Mary has improved her communication skills, both verbal and written, over the past 6 months. However, Mary could spend more time outlining her draft reports so that they will flow in a more logical and concise manner. There have been a few instances where she has had to explain more fully the implications of the results in her reports, but Mary seems to be improving in this area.

<b>HUMAN RELATIONS:</b> Consider working relationships, ability to get along with others, and attitudes that affect job performance.	<b>Performance Level:</b> 3
<b>COMMENTS:</b> Mary gets along with other members of the office and does not hesitate to seek their advice when she has a problem. Moreover, when she receives advice or constructive criticism from other team members, she does not get upset, but seems to learn from the knowledge of others.	
<b>OVERALL PERFORMANCE RATING:</b>  <div style="text-align: center;"><u>2</u></div>	
<b>COMMENTS:</b> Mary's performance review indicates that she needs to improve in the areas of planning and organization and judgment/decision making. She appears to be making an effort to correct the deficiencies previously shown in these areas. I have utmost faith that Mary will continue the improvement she has made, and this will be demonstrated in her next 6 month review.	
I have read, reviewed, and discussed the contents with my supervisor. My signature signifies that I have been advised of my job performance and does not necessarily imply that I agree with the review or its contents.	
Employee signature _____	Date <u>1/15/87</u>





# EXEMPT NON-SUPERVISORY PERFORMANCE REVIEW (6-MONTH)

**Name:** Kathy

**Title:** Market Research Analyst

**Dates of Review:** July 1 - December 31, 1986

**Date:** January 15, 1987

The purpose of this performance review is to apprise you of the way in which the Company views your performance and to indicate any areas of improvement. Nothing set forth in this evaluation shall be construed as a contract of employment.

Instructions: Please complete each sentence below. Cite specific examples that support the rating given. Use additional paper if necessary.

<b>PRESENT DUTIES AND RESPONSIBILITIES:</b>	
<p>The responsibilities of the job of a market research analyst include: (1) coordination of the scheduling, mailing, and return of market research surveys; (2) coding and data preparation; (3) computer programming and statistical analyses; (4) preparation of draft reports; and (5) interfacing with customers and other technical personnel to help discuss goals, requirements, and problems.</p>	
<p><b>QUALITY OF WORK:</b> Consider ability to produce work free from errors, the grade or caliber of work compared to what may reasonably be expected.</p>	<p>Performance Level: 4</p>
<p><b>COMMENTS:</b></p> <p>Kathy consistently produces error-free research projects, plans, and statistical analyses that go far beyond those demonstrated by others. Kathy rarely has corrections made to her draft reports. Kathy usually completes her projects in the absolute minimum time without error. She assists in presenting the results to customers which are received with outstanding reviews.</p>	
<p><b>PLANNING AND ORGANIZING:</b> Consider how well job activity is planned and organized.</p>	<p>Performance Level: 4</p>
<p><b>COMMENTS:</b></p> <p>Kathy demonstrates a unique ability to efficiently and effectively plan and organize a variety of different and often conflicting projects, resources, and requirements. Kathy consistently has all her work done by, or before, the scheduled completion dates and has time to help others with their projects.</p>	
<p><b>JUDGMENT/DECISION MAKING:</b> Consider ability to gather facts, evaluate situations, and reach practical solutions.</p>	<p>Performance Level: 4</p>
<p><b>COMMENTS:</b></p> <p>Kathy consistently demonstrates the ability to recognize and solve potential problems before they become real problems. Because of an outstanding and in-depth understanding of the client and his/her product, her judgment and advice is consistently sought by both in-house and client personnel.</p>	
<p><b>COMMUNICATIONS:</b> Consider ability to express thoughts logically and accurately in presentations and reports. Consider effectiveness in meetings and conferences.</p>	<p>Performance Level: 4</p>
<p><b>COMMENTS:</b></p> <p>Kathy demonstrates outstanding communication skills, in both the spoken and written word. Kathy is extremely effective in speaking at all meetings, briefings, and conferences. All of Kathy's written products have been logical, concise, and easily understood by all who read them.</p>	

<p><b>HUMAN RELATIONS:</b> Consider working relationships, ability to get along with others, and attitudes that affect job performance.</p> <p><b>COMMENTS:</b> Kathy possesses an ability to facilitate task accomplishments and understanding of other personnel, regardless of their education, background, or preconceived ideas. Kathy consistently demonstrates a willingness to help others resolve job-related problems or to suggest another method of accomplishing the task that results in being more efficient and effective.</p>	<p><b>Performance Level:</b> 4</p>
<p><b>OVERALL PERFORMANCE RATING:</b></p> <p style="text-align: center;"><u>4</u></p> <p><b>COMMENTS:</b> Kathy is recognized as an expert in her position and her advice is sought by both in-house personnel and clients. Due to her potential and demonstrated job performance, both in quantity and quality, Kathy is considered a number one candidate for promotion when a higher level becomes open.</p>	
<p>I have read, reviewed, and discussed the contents with my supervisor. My signature signifies that I have been advised of my job performance and does not necessarily imply that I agree with the review or its contents.</p> <p>Employee signature <u>[Signature]</u> Date <u>1/15/87</u></p>	

PLEASE ANSWER THE FOLLOWING QUESTIONS ON THIS FORM.

Please list the names of the employees you are rating and place their overall performance review rating in parentheses.

\_\_\_\_\_ ( ) \_\_\_\_\_ ( )

**PART 1A: PLEASE ANSWER THE FOLLOWING QUESTIONS. THE TOTAL PERCENTAGE OF ALL THE QUESTIONS SHOULD EQUAL 100%.**

The reason Kathy received her rating was due to:

1. \_\_\_\_\_ % having the ability or skill to do the job.
2. \_\_\_\_\_ % working hard to do a good job.
3. \_\_\_\_\_ % working in an easy and not very demanding job.
4. \_\_\_\_\_ % having a lot of good luck (e.g., being in the right place at the right time).

Option: \_\_\_\_\_ None of the above. Instead, the reason(s) is due to \_\_\_\_\_.

**PART 1B: PLEASE ANSWER THE FOLLOWING QUESTIONS. THE TOTAL PERCENTAGE OF ALL THE QUESTIONS SHOULD EQUAL 100%.**

The reason Mary received her rating was due to:

1. \_\_\_\_\_ % not having the ability or skill to do the job.
2. \_\_\_\_\_ % not working hard enough to do a good job.
3. \_\_\_\_\_ % working in a hard and very demanding job.
4. \_\_\_\_\_ % having a lot of bad luck (e.g., bad circumstances in Mary's life).

Option: \_\_\_\_\_ None of the above. Instead, the reason(s) is due to \_\_\_\_\_.

**PART 2: USING THE SCALE BELOW, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Not At All	Not Much	Undecided	Some	Extremely
1. To what extent was ability responsible for Kathy's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. To what extent was effort responsible for Kathy's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. To what extent was an easy task responsible for Kathy's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To what extent was luck responsible for Kathy's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. To what extent was degree of control responsible for Kathy's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Continued

	Not At All	Not Much	Undecided	Some	Extremely
1. To what extent was ability responsible for Mary's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. To what extent was effort responsible for Mary's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. To what extent was an easy task responsible for Mary's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To what extent was luck responsible for Mary's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. To what extent was degree of control responsible for Mary's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 3: PLEASE COMPLETE THE FOLLOWING 4 QUESTIONS.**

1. Divide the \$12,000 between Kathy, Mary, and yourself.

\_\_\_\_\_ Kathy      \_\_\_\_\_ Mary      \_\_\_\_\_ Yourself

2. Why did you divide the money the way you did?

3. If you could give up to \$12,000 each to Kathy, Mary, and yourself, what amount would you give to:

\_\_\_\_\_ Kathy      \_\_\_\_\_ Mary      \_\_\_\_\_ Yourself

4. Why did you divide the money the way you did?

**PART 4: THINK ABOUT KATHY'S AND MARY'S PERFORMANCE, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Poor Performance	Performance Needs Improvement	Undecided	Good Performance	Outstanding Performance
1. What kind of performance rating did Kathy receive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. What kind of performance rating did Mary receive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Continued

**PART 5: THINK ABOUT HOW YOU DIVIDED THE MONEY. CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Not At All	Not Much	Undecided	Some	Extremely
1. To what extent was your decision on how to divide the money influenced by how Kathy would feel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. To what extent was your decision on how to divide the money influenced by how Mary would feel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. To what extent was your decision on how to divide the money influenced by avoiding conflict with either Kathy, Mary, or both?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To what extent was your decision on how to divide the money influenced by maintaining a friendly atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. To what extent was your decision on how to divide the money influenced by being friendly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. To what extent was your decision on how to divide the money influenced by getting to know the two employees better?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. To what extent was your decision on how to divide the money influenced by avoiding being unpleasant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. To what extent was your decision on how to divide the money influenced by making a favorable impression on the experimenter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. To what extent was your decision on how to divide the money influenced by making a favorable impression with the employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. To what extent was your decision on how to divide the money influenced by making the employees feel better?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Continued

	Not At All	Not Much	Undecided	Some	Extremely
11. To what extent do you think your division of the money is confidential?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. To what extent do you think the experimenter is unaware of how you divided the money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. To what extent do you think the employees are unaware of how you divided the money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 6: USING THE SCALE BELOW, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Not Very Fair	Not Fair	Undecided	Fair	Very Fair
1. How fair or unfair was the way you divided the money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How fair or unfair was the way you divided the money to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How fair or unfair was the way you divided the money to Kathy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How fair or unfair was the way you divided the money to Mary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 7: USING THE SCALE BELOW, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Dislike Very Much	Dislike	Undecided	Like	Like Very Much
1. How much did you like or dislike Kathy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How much did you like or dislike the experimenter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How much did you like or dislike Mary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very Incompetent	Incompetent	Undecided	Competent	Very Competent
4. How competent or incompetent was Kathy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How competent or incompetent was Mary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 8: USING THE SCALE BELOW, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I feel that I'm a person of worth, at least on an equal basis with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I feel that I have a number of good qualities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. All in all, I am inclined to feel that I am a failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am able to do things as well as most people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel I do not have much to be proud of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I take a positive attitude toward myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. On the whole, I am satisfied with myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I wish I could have more respect for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I certainly feel useless at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. At times, I think I am no good at all.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 9: USING THE SCALE BELOW, CHECK THE BOX WHICH BEST REPRESENTS YOUR ANSWER.**

	Very Poor	Poor	Undecided	Good	Very Good
1. How do you think you perform when dividing money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How do you think others like you are able to perform when dividing money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How do you think men can divide money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How do you think women can divide money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How have you done in the past dividing money between people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. How do you feel about how you divided the money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. How would someone else rate how you divided the money?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Indicate your sex.     Male     Female



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