THE RECIPIENT'S REACTIONS IN HELPING SITUATIONS

By

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ABSTRACT

The recipient of aid has, until recently, been given scant attention by researchers. In view of the paucity of recipient-related literature, the present research investigated a number of situational determinants of response to aid. Six experiments, one using a task-performance setting and the others using a choice-setting involving the Altruism matrix, were reported.

The following paradigm was adopted: in a prior situation, the potential recipient was offered help of varying magnitude, usually by a confederate, along with a manipulation of the relevant independent variable. The recipient's reactions were observed. In a subsequent situation, donor-recipient roles were reversed, and the behaviour of the potential donor (former recipient) was observed.

Results from the present research indicate that, in settings like the ones used here, subjects who receive prior help are more likely to give later help than subjects who receive no prior help. However, the likelihood of later help is reduced if the former donor subsequently communicates even an indirect need for help.

Given that a donor offers help independently of the recipient's responses, potential recipients accept more help if they anticipate a later opportunity to return it than if they are unaware of such an opportunity. When the later opportunity arises, they return more help

if they had expected it than if they had not expected it. Recipients also accept, and subsequently return more help when the donor offers a large amount of help than when he offers a small amount of help. When the donor states an intention to give a specific amount of help, and then carries out or does not carry out this intention, the recipient's acceptance tends to be in accordance with the stated intention while the subsequent amount of help returned tends to be in accordance with the amount of help actually received from the donor in the prior situation. When the donor states this intention along with or without a condition, the recipient tends to accept more help generally in the 'conditional' situation than in the 'unconditional' situation, but subsequently returns more help in the latter than in the former condition.

It is also observed that with a person of the same sex, males accept and later return more help than females.

These findings can be interpreted in terms of the reciprocity norm, equity, indebtedness, psychological reactance, and possibly a perception of the donor's willingness or reluctance to offer help. The sex differences obtained here can be explained in terms of possible motivational differences between males and females in the situation.

In addition to providing evidence on some factors that have been found to affect recipient reactions, the present research makes at least two contributions to the field. First, it makes a methodological contribution by demonstrating that a choice-setting with the appropriate reward structure can be utilized to study the recipient

of help. The Altruism matrix employed in this research is a useful alternative to the task-performance setting conventionally used in the field of helping behaviour. Secondly, this research reveals a consistency between behaviour in various settings. The recipient reactions (for example, reciprocation) obtained with the Altruism matrix are mostly in agreement with findings from other task-performance studies, as well with findings from a number of choice-setting studies that are traditionally used for the study of cooperation and competition. Broadly, this points to a common thread of social-exchange principles running through these settings.

With the availability of more information on the recipient, it would eventually become possible to formulate general principles regarding reactions to help, and to apply such principles, where feasible, to social and international aid programs.

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GENERAL INTRODUCTION

Throughout history, altruism has been considered a necessary virtue, its moral implications being glorified by philosophers. In recent years, social researchers have been interested in altruism pragmatically, and as Wispé (1972) points out, popularity seems to have shifted from anti-social behaviours like aggression and delinquency to more positive or 'prosocial' forms of behaviour like cooperation, sympathy, sharing, generosity, altruism and helping. This dissertation deals with the last-mentioned class of prosocial behaviour, namely, altruism and helping.

Simply described, 'altruism' refers to behaviour or in some cases, attitudes, stemming from a concern for, or interest in, the welfare of others as opposed to the welfare or interest of oneself. There is some debate as to the best definition of altruism. Leeds (1963, in Krebs, 1970) has defined altruism as follows:

> "..... an altruistic act a) is an end in itself: it is not directed at gain, b) is emitted voluntarily, and c) does good. "
>
> (Krebs, 1970, p.259)

To this might be added Severy's (1974) view that

> "altruism is helping motivated by the other person's being in need. "
>
> (Severy, 1974, p.190)

The characteristics of altruism mentioned in these definitions imply motivational and intentional considerations which may not always

be obvious from the altruistic act. For example, lack of an expectation of gain after an altruistic act may be difficult to prove. It may, however, be an important element in reciprocity. Similarly, such behaviour may not actually do good to the recipient, but may have been intended to do so by the benefactor. That intention is the essence of altruism has been stressed by some authors (Severy, 1974), but establishing intention may be difficult in the absence of a direct relationship between intention and behaviour (Pomazal and Jaccard, 1976).

In the present context, without getting into a detailed discussion of the definition of altruism, its behavioural aspect will be the focus of interest. While recognizing the importance of motives and intentions of helping, such covert factors will be taken as 'given'. The use of the term 'helping behaviour' may obviate some definitional problems, because it refers to the helping act without making specific assumptions about underlying intentions or motives. At this point, then, in this context, helping behaviour is defined thus: it is that which is directed toward another person perceived to be in need of help, is done without an expectation of immediate external rewards, involves some cost to the helper, and is meant to have positive consequences for the recipient.

Some of the constituents of a typical helping situation are:

1) The donor of help, or the benefactor.
2) The recipient of help, or the beneficiary.
3) The resources given and received by way of help.
4) The reactions of the recipient to the help.

A good deal of work has been done and is in progress in the field of altruism and helping behaviour. However, the bulk of research has been devoted to the donor and to the giving of help. The recipient and the receiving of help have remained, until very recently, almost completely neglected. There are a number of reasons for this apparent lack of interest in the receiving end of the helping relationship. First, in most real-life situations, especially when help is needed, the question that arises is whether or not help will be given, and not whether it will be accepted or refused. Secondly, the recipient of help has traditionally been relegated to a less active role than the donor. As Katz (1972) remarks,

> ".... in almost all of the natural or experimental situations, the recipient is something of an inert object of some sort of charity....."
>
> (Katz, 1972, p. 67)

Comments like "charity wounds him who receives" (Mauss, 1954) add to the passivity attributed to the recipient. Possibly the recipient is seen as secondary to the donor because once aid has been given, the recipient's reactions often do not change the situation in any significant way.

Thirdly, there has been no real-life incident of serious social consequence related to the receiving of help, that could set the stage for research on this topic. The famous incident of Katharine Genovese (Latane and Darley, 1968) provoked researchers to investigate intervention and helping in emergency situations, but no parallel incident can be cited with regard to the acceptance of help. There is thus a clear gap in knowledge pertaining to helping situations that needs to be

filled.

Even for those interested mainly in the giving of help, the recipient's characteristics (for instance, his dependence on the donor) are an important determinant of help-giving (Krebs, 1970). Moreover, the absence of information on recipient-related behaviour renders the study of helping incomplete, by omitting a crucial component. In the words of Lau and Blake (1976),

> " Helping behavior.....often implies an interactive relationship between the help-giver and the recipient. Consequently, a complete picture of helping behavior would seem to require an analysis of recipient behavior beyond simply an assessment of those recipient characteristics likely to elicit giving.... Expansion of this line of analysis would seem to be useful if we are to understand the act of helping rather than just the helper per se. "
>
> (Lau and Blake, 1976, p.9-10)

In addition, the study of recipient reactions may have social importance in the real world. While it may be admitted that real-life recipients of help like the client in a counseling setting, the welfare recipient, and a developing nation receiving foreign aid, differ from individual recipients in laboratory situations, the systematic and controlled study of the latter recipients can help us gain some insight into the bases of such differences.

In short, the academic importance of studying the recipient's reactions to help, the possible practical implications of such a study, and a serious dearth of research on the recipient of help collectively motivated the present research project.

Some of the possible forms of recipient reactions may now be described.

Recipient Reactions

In this context, the term 'recipient reactions' is used to include the various possible reactions that a potential recipient might show when help is offered, and may include the following:

1. The potential recipient may accept or refuse the offered help, or may accept only part of it.

2. In the case of partial acceptance, the amount of help accepted may vary from situation to situation. Under some circumstances (e.g. in accepting a doctor's services in an emergency), acceptance may often have to be an all-or-none affair.

3. The recipient may experience a range of emotions in accepting help, obligation (indebtedness) and gratitude being two possibilities. It is difficult to state exactly under what conditions the experience will be a relatively unpleasant state like obligation, and when it will be a relatively pleasant one like gratitude.

4. The recipient might respond to the offer of help in a short or long time. Presumably, the time taken to respond to the offer would be correlated with the time taken to decide whether or not to accept the offered help. A short interval between the offer and the response would probably indicate a more definite decision (to accept or refuse) than would a longer interval. At the same time, it is conceivable that there might be a number of factors affecting the latency of response to help.

5. The recipient might later respond by helping the former donor, if an opportunity arises. Under such circumstances, other determinants of

spontaneous helping might be at work,too, so that it would not be easy to determine whether the subsequent help is given because the person was a former recipient, or because of other reasons. Whatever the instigator of subsequent help, two dependent measures that might be considered are a) the time taken to decide whether or not to give help, and b) the amount of help given.

6. The recipient may differ in his attitude toward the donor, and may like him a great deal or very little, depending on a number of factors that will be discussed in the present research.

These reactions by the recipient may depend on a consideration of several factors:

1) The perceived reasons or motives for the help: These factors might affect not only the recipient's immediate response of acceptance or refusal of help, but may also determine his subsequent decision to help or not to help the former donor.

2) The perceived cost or sacrifice involved in helping: This factor might determine the degree of obligation or gratitude experienced by the recipient, which, in turn, might affect both the recipient's immediate response to aid, and subsequent behaviour and liking for the donor.

3) Social norms, or expected modes of behaviour: It is frequently assumed that the individual is governed by social norms in all social interactions, even though he may not always be aware of their influence. In a helping situation, the recipient, although unaware of such norms, may base his response to help on his judgment of expected behaviour

appropriate to that situation. In this connection, three norms in particular enter the picture:

(i) The norm of reciprocity

(ii) The norm of social responsibility

(iii) Equity

The Norm of Reciprocity

Gouldner (1960) proposed that societies are governed by the norm of reciprocity, the basic postulate of which he states as follows:

> "....a norm of reciprocity, in its universal form, makes two inter-related minimal demands: (1)people should help those who have helped them, and (2) people should not injure those who have helped them. "
>
> (Gouldner,1960,p.171)

To illustrate the prevalence of this norm, Gouldner cites instances of exchange in various primitive and modern societies that involve giving and receiving gifts. He describes two kinds of reciprocity: a) homeomorphic reciprocity, in which the resources given are equivalent in form to those received. In other words, the recipient repays the donor literally "in his own coin"; b) heteromorphic reciprocity, in which the resources exchanged are different in form, but equivalent in value. The former is described as "tat for tat" reciprocity, as distinguished from the latter which is "tit for tat" reciprocity. According to Gouldner, the reciprocity norm serves certain functions. First, it defines and maintains status relationships by requiring all members of society to fulfil duties and obligations associated with their status. Secondly, the norm explains why

mutual dependence among members of society persists. If each person depends on another's services, a transaction between the two continues as long as each reciprocates the other's services. This relationship is extended to other aspects of social life also. There may be some exceptional situations of unilateral 'giving', as in some power relations and specific emotional relations (e.g. between a mother and child). The idea of mutual dependence derived from reciprocity is applied by Malinowski (in Gouldner, 1960) to the concept of division of labour.

Thirdly, the reciprocity norm is said to act as a "starting mechanism" for interpersonal relationships. This it does mainly on the basis of anticipated continuation of reciprocity, because

> "....the norm obliges the one who has first received a benefit to repay it at some time; it thus provides some realistic ground for confidence, in the one who first parts with his valuables, that he will be repaid."
>
> (Gouldner,1960, p.177)

Applied to the context of helping, this idea suggests that the donor of aid initiates the exchange and the recipient is expected to reciprocate the help as soon as an opportunity arises. Fairly recently, Bar-Tal (1976) has specified that all reciprocal acts may not necessarily be prosocial.

> "...a recipient of help must decide to reciprocate without external pressure. Reciprocity initiated as a result of a threat or anticipation of external rewards is not considered a prosocial act. "
>
> (Bar-Tal,1976,p.111)

The preceding discussion of the significance and prevalence of reciprocity is not meant to imply that this norm always operates under all circumstances. In Gouldner's words,

" To suggest that a norm of reciprocity is universal is not, of course, to assert that it is unconditional. "

(Gouldner,1960,p.171)

It is conceivable that certain conditions will facilitate while others will inhibit the operation of the reciprocity norm. The research being undertaken here will help in discovering some of these factors.

The Norm of Social Responsibility

Berkowitz and others (e.g. Berkowitz and Daniels, 1963, 1964; Staub, 1972) suggest that we are governed by a norm of social responsibility, according to which we feel responsible for helping those who depend on us for help. In the context of this norm a potential needy recipient may be said to be 'dependent' on a potential donor who is capable of giving such aid. The social responsibility norm refers primarily to occasions of spontaneous helping, without occurrence of any prior help. Considered from the viewpoint of the recipient, it is the perception of his need or dependence on the donor that serves as the starting point of helping behaviour. Although the proponents of the social responsibility norm are not concerned directly with this issue, a question that arises naturally is: what are the recipient-related cues that lead to a perception of need and dependency ?

In some situations (e.g. emergency situations involving physical injury), such recipient-related cues for need and dependency are fairly obvious. But in other non-emergency settings, the cues may be more ambiguous, so that even if the social responsibility norm were

operating, the recipient might not be perceived to be in need of help. Most studies that have used non-emergency situations have involved a direct request for help by the potential recipient, since normally a request for help is considered a definite indicator of need for help.

However, the problem with a direct request is that so-called helping in response to the request is confounded with other behaviour like compliance and ingratiation. It would not always be possible to know if the recipient is helped for the sake of politeness (it is rude to refuse a direct request for help), or if helping is motivated by a perception of the recipient's need or dependency. In one of the experiments to be reported in the present research, an attempt was made to solve this problem. Instead of making a direct request for help, the recipient indirectly conveyed a need for help. It is believed that such an indirect communication of need would demonstrate the operation of the norm of social responsibility more unambiguously than would a direct request.

In discussing the social responsibility norm, the concepts of need and dependency require some elaboration. A potential recipient may 'need' help because it is indispensable to him for the accomplishment of a particular goal. Alternatively, he may 'need' help only to attain the same goal more efficiently. In the former case, need may imply a lack of or deficiency of the resources required for goal-accomplishment. In the latter case, even though there is no deficiency help may be accepted for expediency. In the research to be reported here, we shall be dealing with need of the latter kind.

Dependency refers to an interpersonal relationship, as distin-

guished from need which refers to a state of the individual. Since need and dependency are very often closely related, in the present research, the two terms will be used interchangeably with respect to the recipient.

From the recipient's viewpoint, the social responsibility norm may affect his reactions in the following way. Assuming that a potential recipient himself is aware of this norm, he might attribute unsolicited helping to the operation of this norm. In other words, he might believe he is being helped because of his dependency, and this might arouse feelings of inferiority or incompetence. Accepting help under such circumstances would amount to an acknowledgement of an inferior status, and generate an unpleasant affective state. The degree of discomfort caused by an awareness of dependency will probably determine whether or not the potential recipient will accept help, the amount accepted, his liking for the donor, and the likelihood and amount of later reciprocation.

The presence of dependency also raises the issue of power and status differences (Thibaut and Kelley, 1959; Gruder, 1970). The donor of help, having the capacity to provide resources or rewards to the potential recipient, may be said to be more powerful than the recipient who may be said to be in a relatively weaker position. The recipient's behaviour under these circumstances constitutes a response not only to an offer of help, but also to the power difference. While Berkowitz and others (Berkowitz and Daniels, 1963, 1964) have discussed dependency as an element of the social responsibility norm, they have not adopted the power-dependence approach to a helping situation, which has been

dealt with by other authors (e.g. Schopler and Bateson, 1965). To the extent that a helping situation represents social exchange, it might be useful to view the recipient's reactions in terms of a dependent person's response to a powerful person, in the sense in which Thibaut and Kelley (1959) have conceptualized this relationship.

Equity

Equity theory has not formally been proposed as a norm , in the strict sense of the latter term. Yet considerations of equity (Homans, 1961; Adams, 1963,1965.), justice (Lerner, 1970) and fairness (Leventhal, 1976) seem to underlie so many different aspects of social exchange that they can be collectively said to constitute a social norm. The existence of equity in exchange seems to be explicable on two bases, economic and moral. From the economic point of view, equity enables optimization of outcomes of exchange on the basis of a consideration of costs and benefits. The moral aspect of equity, which also leads to the issue of justice, may be found in the ideal of the "greatest good for the greatest number" (Walster, Berscheid and Walster, 1973). In a simple two-person situation equity refers to a state of "distributive justice" (Homans, 1961), which, in turn, represents an equality between the ratio of one person's rewards to his inputs, and that of the other person's rewards to his inputs. Assuming that both persons incur some costs and obtain some rewards through the exchange, equity may be more correctly described as equality between the ratio of their rewards less costs, to their costs. Adams (1965) expressed essentially the same idea. Inequity occurs when either of the above two ratios is greater. In the case of a helping relationship, the recipient obtains

rewards with little or no costs, while the donor incurs costs by helping with little or no rewards[1]. Inequity creeps into this relationship because, as described by Bar-Tal (1976), the reward/cost ratios of the recipient and the donor become unequal, thus:

$$\frac{\text{Recipient's outcomes}}{\text{Recipient's inputs}} > \frac{\text{Donor's outcomes}}{\text{Donor's inputs}}$$

In some situations, rewards or outcomes could be in the form of affective states, like satisfaction to the donor or obligation in the recipient. A helping situation could be inequitable even in terms of such affective states.

The occurrence of inequity in a relationship leads to an attempt to restore equity or to reduce inequity. As Walster, Berscheid and Walster (1973) describe this state,

> " Equity theory leads us to expect that the benefactor and recipient.....should experience vague discomfort when they discover they are participating in an inequitable relationship. "
>
> (Walster, Berscheid and Walster, 1973, p. 166)

Inequity may be reduced or removed either by returning the favour, by terminating interaction with the donor, or by using cognitive means to restore equity, as suggested by Bar-Tal (1976):

> " He can also distort cognitively either his inputs and/or outcomes or the donor's inputs and/or outcomes. The recipient, for example, may decide that the donor enjoyed giving the help that increased the donor's outcomes, or the recipient may decide that receiving help was very costly, thus decreasing self-outcomes. "
>
> (Bar-Tal,1976, p.114)

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1 There may be intangible rewards to the donor in the form of satisfaction. It follows that these rewards to the donor determine the degree of inequity he experiences. Nevertheless the situation may be inequitable from the recipient's point of view.

These three norms are inter-related. The reciprocity norm refers mainly to the recipient without saying much about the donor, the social responsibility norm refers primarily to the donor and help-giving, while equity takes into account the donor-recipient relationship. Reciprocity is considered by some authors (Bar-Tal, 1976) to be a case of inequity, for as long as help remains unreciprocated, the relationship remains inequitable. The social responsibility norm, although apparently unilateral (because it refers to help-giving alone), may determine the recipient's response by affecting his perception of himself as the weaker, dependent component of the helping situation. The more he resents this position, the greater he will evaluate his costs to be, thus lowering the likelihood of reciprocating the favour.

Upto this point, the discussion has been theoretical, and was aimed at introducing the basic framework on which the proposed research is structured. In the chapters that follow, the literature on the recipient of help will be reviewed, and experimental studies of some of the neglected variables in this area will be interpreted in the light of the theories just discussed.

CHAPTER TWO

A REVIEW OF THE LITERATURE ON RECIPIENT REACTIONS

In the last chapter some of the possible reactions to aid in a typical non-emergency helping situation were described. Theoretical frameworks within which recipient reactions may be explained were also discussed. Since interest in the recipient of aid is relatively recent, very little work has been reported on this aspect of a helping situation. In this chapter, the available literature on the recipient will be reviewed broadly. This will enable us to indicate generally the paradigm followed in these studies and the variables investigated. It will also point out factors that need further exploration, some of which have been selected for investigation in the present research.

While our primary concern in this review will be with recipient-related experiments, occasional reference to help-giving studies may be necessary, since the receiving of help presupposes that aid has already been offered, and since some determinants of help-giving may also affect the recipient's reactions.

A glance at the literature on helping behaviour shows that the recipient has been rarely mentioned before 1950. Wright (1942), in her study of children, reported one recipient characteristic that affects sharing behaviour. Children were found to be more likely to share even an attractive toy with a stranger than with a friend. In 1954, a detailed analysis of gift-exchange in primitive societies by Mauss, an anthropologist, was published. Studying the potlatch ceremony among

West Coast North American Indians, and similar customs of the Polynesians, Maoris and natives of the Andaman Islands, Mauss found both the core characteristics of primitive social systems, and the forerunners of the moral and economic aspects of exchange in modern societies. Gift-exchange in these primitive societies could be expressed in the form of three obligations: the obligation to give, to receive, and to repay. From the recipient's point of view,

> " The gift not yet repaid debases the man who accepted it, particularly if he did so without thought of return....."
>
> (Mauss,1954, p.63)

Similar instances of rules governing giving and receiving gifts in the Eskimo culture, in the Phillipines and in Japan have been cited very recently by Greenberg (1978).

In 1960, Gouldner's "preliminary statement" of the norm of reciprocity became a landmark in the field of recipient reactions to help. The explicit statement by Gouldner that the reciprocity norm, although universal, is by no means unconditional, can perhaps be considered the starting point of later experimentation on the recipient.

> " Unconditionality would, indeed, be at variance with the basic character of the reciprocity norm which imposes obligations only contingently....."
>
> (Gouldner, 1960, p.171)

The practical importance of considering the recipient's reactions to help was brought into the limelight by Briar (1966) when he looked at welfare "from below" (that is, from the recipient's point of view). However altruistic social welfare may seem "from above" (that is,from the viewpoint of the administration), the recipient of

such aid may not always feel comfortable about it. In a survey conducted on the recipients of one form of social aid[1], Briar reported that the vast majority of them perceived the aid as charity, thought the welfare agency had a right to control its use, and said that they did not generally feel happy about being on welfare.

Schwartz'(1967) essay on the gift was a further elaboration of the theoretical aspects of social exchange. He included the concept of distributive justice (p.12) in the reciprocity norm, and stated that the gift-giver would feel uncomfortable if the recipient failed to reciprocate. By the same token, however, a repayment that is in excess of what was given originally may also cause feelings of discomfort, because the surplus rewards may be thought of as undeserved.

This was followed by Dillon's (1968) discussion of some possible recipient reactions in the context of foreign aid. Helping the needy is commendable, but the inability of recipient nations to return a gift may make them fail to appreciate this fact, and may generate hostility instead of gratitude. As Dillon says,

> "Gratitude is the least of the gifts donor nations should expect. Recipients are never grateful until they can render something they value. Expectation of gratitude alienates the donor from the recipient."
>
> (Dillon, 1968, p.112)

Continuing in the same context, Gergen(1969)pointed out that such reactions of apparent ingratitude toward nations like the United

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1 AFDC-U: Aid to Families of Dependent Children-Universal. This aid is given to families with dependent children and an unemployed father (Briar, 1966).

States by some developing countries might be explained on the basis of ulterior motives attributed to the donor nation. Andreas (1969) extended the discussion of foreign aid by indicating how, in some countries, reciprocal aid is valued more highly than a non-repayable gift. Disparaging newspaper editorials in India and Pakistan that stressed the political repercussions of accepting unilateral military aid from the "big powers" are given as examples. Andreas suggests that participation by the recipient nations in aid programs set up by the donor nation and allowing them greater flexibility in trade might generate a more positive attitude in the recipient countries.

More recently, Gergen and Gergen (1974) have demonstrated that aid characteristics and the recipient's psychological state might be powerful determinants of the recipient's responses. Restrictive aid that lowers the recipient's self-esteem may be grudingly accepted and misused, reducing the likelihood of further help from the donor. These authors quote a U.S. official involved with a foreign aid program as stating this point in the following words:

> " If you give a man a piece of bread when he knocks on your door- don't tell him to eat a third of it, give a quarter to his eldest son and put the rest in the icebox."
>
> (Gergen and Gergen,1974,p.56)

In this connection, Hardin (1974) draws our attention to some of the less charitable consequences of helping poor nations. Apart from appearing ungrateful, such recipients may become more dependent on aid, and may multiply the number of people who find it difficult to

survive .

Welfare recipients and developing nations requiring aid are good examples of recipients in real life, but their reactions might differ in some respects from those of an individual recipient in other settings. The welfare recipient, for instance, may resent the numerous restrictions imposed by an impersonal bureaucracy. The ingratitude of nations receiving foreign aid may stem from the extra-situational political and economic considerations often mediating reactions to aid of this sort. Besides, the reactions of the government of a country as representatives of the residents may not coincide completely with the reactions of the recipients themselves, a point that is indicated by Franklin (1975). Thus, while parallels between real-life recipients and individual recipients in other settings may eventually be drawn, this should be done with some caution.

It is clear, then, that social researchers have now begun to realize that studying the recipient of help is necessary. Many of the theoretical suggestions presented above and in the previous chapter have been examined in experimental settings, and these studies will now be described. In reviewing these experiments, attention will not be confined to conventional helping situations. Rather, any exchange setting that allows for a response to a more generous or less generous form of behaviour from another person can be used as a medium for studying the recipient's reactions. This would include, for instance, situations in which rewards are allocated between two persons, and one person over-rewards another person. The responses of the recipient of

such a generous but inequitable reward might be parallel to those of a recipient of help on task-performance, which also represents an inequitable situation as discussed in the previous chapter. Similarly, the distribution of rewards in a choice- or decision-making setting would also yield information on how recipients of prosocial behaviour react. The best example of choice settings used in social psychology is the whole area of game research. To the extent that a game allows the participants to make choices with which are associated rewards(payoffs) for oneself and for the other, and to the extent that such choices involve certain costs, the responses (choices) of the other person who benefits from one's choices can be considered analogous to recipient reactions to aid in other situations. In some choice-settings, the nature of the reward structure makes one participant more powerful than the other, by permitting him to bestow rewards on or withdraw rewards from the other participant, who is in a weaker position. This is parallel to the helper-recipient relationship in typical helping settings, as described in the previous chapter.

In short, although traditionally games have been used to study cooperation (benefitting both self and other) and competition (benefitting self at the cost of the other, or even suffering a loss in order to gain relative to the other), such settings may be modified so as to investigate behaviour that benefits the other at a cost to oneself (e.g. Kuhlman and Marshello, 1975; MacCrimmon and Messick, 1976).

The following review will include three kinds of experiments: those involving a task-performance setting, in which help is exchanged

during performance of a structured task - these studies will form the bulk of our review; those involving reward-allocation based on task-performance, in which the recipient has a chance to re-distribute the rewards; and those involving a choice- or decision-making setting, in which the recipient responds to a prosocial (e.g. cooperative) choice.

A Review of Experimental Studies related to the Recipient's Reactions

Typically, these studies adopt the following paradigm: on one occasion, the subject is helped, given a generous reward, or given a cooperative choice. Later, the subject gets an opportunity to return the favour. The dependent measures usually consist of the frequency of accepting the help or reward, the amount accepted, the frequency and amount of later helping or rewarding, and liking for the former benefactor.

The response most commonly observed in these experiments is a return of the favour by the former recipient, which is consistent with reciprocity and with considerations of fairness in social exchange. Viewed from the point of view of power roles, in situations in which there is a reversal of roles, the return of a prior favour would be analogous to an attempt to balance the power to control the other's outcomes (Jacobson,1972). To cite an example of recipient reactions to reward-allocation, in a study by Leventhal,Allen and Kemelgor(1969) subjects working on arithmetical problems were either under-rewarded or

over-rewarded for their performance. It was found that on later re-allocation, those who had been under-rewarded increased their share, and recipients who had been over-rewarded decreased their share of the rewards, in keeping with equity considerations.

In some situations, the favour may not be returned directly, and yet inequity caused by over-rewarding or over-compensation may be reduced cognitively (p.13). Among Moore and Baron's (1973) subjects, those who were over-compensated for a task perceived themselves as more qualified for it than did those who were paid at a standard rate, and also did more work than the latter subjects. Moreover, those who were said to be unqualified performed less of the task than did those who were said to be qualified. Similar results were reported by Gergen, Morse and Bode (1974) and by Morse, Gruzen and Reis (1976). There were similar techniques of compensation or reciprocation in the experiments to be described below, but in some studies recipients seemed to increase inequity. Leventhal and Bergman's (1969) experiment appeared to show such an effect. Individuals and a confederate having very similar inputs into task-performance were rewarded, some getting slightly less than half, some getting much less than half, and others getting an equitable share (half) of the rewards. It was found that many subjects getting much less than half of the rewards decreased their share further on subsequent re-allocation of rewards, possibly in accordance with their view of how much they deserved.

In most studies of the recipient, compensation or reciprocation was found to depend on a number of factors, which will now be reviewed. This task will probably be facilitated by following the classification

of these factors by Gergen (1974) and Bar-Tal (1976) into four major categories: donor characteristics, characteristics of the benefit, recipient characteristics, and context or situational characteristics. Bar-Tal's fifth class of factors- namely, cultural variables- will not be considered separately.

I. Donor characteristics

Under this heading, personality characteristics of the donor, as well as characteristics attributed to him by the recipient, may be included. Examples of the former have been illustrated in a few studies on help-giving. For instance, an internal rather than an external locus of control (Gore and Rotter, 1963), greater cooperativeness (Sawyer, 1966), high empathy (Liebhart, 1972), extroversion and warm-heartedness (Smith and Nelson, 1975) have been found to be associated with help-giving.

In a reward-allocation setting, Lane and Messé (1971) found scores on Altruism as measured by Messé's Rand Scale, and Benevolence as measured by the Study of Interpersonal Values (Gordon, 1960) negatively correlated with self-interest (i.e. taking a large share of the reward) in a unilateral power setting where the allocator could easily reward himself.

A number of choice settings using mixed-motive games have found in general that low authoritarianism (Deutsch, 1960; Kuhlman and Marshello, 1975), internationalist versus isolationist attitudes (Lutzker, 1960), religious values on the Allport-Vernon-Lindzey Study (Scodel, 1960), high trustworthiness and altruism (Wrightsman, 1966) and a few other

personality factors are positively correlated with cooperation. In settings using differing power roles, McKeown, Gahagan and Tedeschi (1967) reported no correlation between authoritarianism and cooperation, but Tedeschi, Burrill and Gahagan (1969), using a similar matrix, did report correlations between cooperation and other conditional choices, and scores on the Manifest Anxiety Scale and the Marlowe-Crowne Social Desirability Scale.

Despite all these correlations, such characteristics might not directly affect the recipient's reactions. What are more relevant for our purposes are attributed characteristics, and these would include intentions and motives for the donor's help.

Schopler (1970) has discussed the role of attributed intention in reciprocity, and has mentioned three criteria that the recipient might use to judge the donor's motives: if there are no extraneous rewards for the donor, if the help synchronizes with the recipient's need, and if the help is appropriate in the context, the recipient would react to it positively. Some experimental findings show the effect of attributed intention quite clearly. Goranson and Berkowitz (1966) conducted an experiment in which subjects were helped by a confederate on his own initiative (voluntarily), on the experimenter's instructions (compulsorily), or were not helped. It was found that on a subsequent task, subjects worked harder to help the person who earlier helped voluntarily than the one who had helped compulsorily. A comparable finding was reported by Schopler and Thompson (1968). Female subjects participated ostensibly in a 'marketing study', investigating attitudes of consumers toward a product. After a brief interview subjects received

or did not receive a favour from the interviewer (who had a high or low status). Later, subjects were requested to participate in a 'home test' of the same product. Contrary to expectations, those who had received a favour complied to a smaller extent with this request, than did those who had not received the favour. A second study varying the formality of the interview setting showed that comparing subjects who had received a favour from the interviewer, there was less compliance in the 'formal' condition than in the 'informal' condition. While this does not show whether a 'no favour' group would have complied more or less than the 'favour' group in the 'informal' condition, the authors concluded that the formality of the situation made the subjects suspect the motives of the interviewer, and so they complied with the request to a smaller extent than in the informal condition.

In a study similar to that by Goranson and Berkowitz (1966), Nemeth's (1970 b) subjects were helped voluntarily or involuntarily by a confederate, or were refused help on a voluntary or involuntary basis. Findings showed that the voluntary helper was liked more than the involuntary helper. The person who refused help was liked less than the helper, but this rating of liking was higher when the refusal was involuntary than when it was voluntary. Greater liking for a voluntary than for an involuntary helper was also found in a more recent study by Gross and Latané (1974) which will be described later in the context of liking and helping.

Intentions may be attributed by the recipient in terms of whether he thinks the donor might 'use' him on a later occasion. This factor as a possible determinant of the recipient's reaction was revealed in a

series of two questionnaire studies by Thompson, Stroebe and Schopler (1971). In each study, subjects were given a hypothetical situation in which the protagonist was described as helping a high-power person (a professor) or a low-power person (a janitor) at a cost to himself. Subjects' evaluation of help given in these situations showed that help given to the high-power person was perceived as being directed toward the donor's own gain ("self-seeking") to a greater extent than help given to the low-power person.

Accidental or deliberate helping, along with varying magnitude of help, was examined by Greenberg and Frisch (1972). Subjects who had been previously helped accidentally or deliberately by a confederate later got an opportunity to help the former donor by allowing him to get a monetary reward. They were found to give more help in the 'deliberate' than in the 'accidental' condition. That this was indeed due to an attribution of intention was indicated in the recipients' ratings of the donor, whereby they perceived the donor as being more concerned for the subject, and more motivated to help him, in the 'deliberate' than in the 'accidental' condition.

The effect of intentionality on the recipient has been found also by way of how the help was initiated. Broll, Gross and Piliavin's (1974) subjects were given help by a confederate either in response to a request, or without a request, while working on a difficult logic problem. Subjects were found to like the donor more when he helped spontaneously than when he helped in response to a request, possibly because helping was considered voluntary in the 'unrequested' condition, and forced in the 'requested' condition. But in a later study by

Greenberg and Saxe (1975) the opposite was found to be true. Subjects were presented with hypothetical situations in which a student in need was offered help spontaneously (Offered condition), was helped in response to a request for help (Requested condition), or help was imposed on him (Imposed condition). In addition, the help was costly or not costly to the donor, and its outcome was successful or unsuccessful. Subjects' responses to these situations indicated that obligation to help the other person in return was strongest, and liking for him was greatest, in the Requested condition. Moreover, willingness to help the other person was greater under the Successful outcome condition, when help had either been Offered or Imposed, but was unaffected by the success of the outcome when help was requested. Presumably, in this situation, the donor's help in response to the recipient's request was less 'suspect' than either help without a request or help that was imposed on the recipient.

The intention attributed to the donor has been found to affect compensation in reward-allocation studies. In an experiment in which subjects were over-rewarded or under-rewarded on a task by a partner either by chance or intentionally, Leventhal, Weiss and Long (1969) report that over-rewarded subjects decreased their share in subsequent re-allocation of rewards to a greater extent in the 'chance' condition than in the 'intentional' condition. But this difference did not occur in the case of under-rewarded subjects. On the same lines, Garrett and Libby (1973) found that among students who had been over-rewarded or under-rewarded intentionally or unintentionally by a partner, only recipients in the 'intentional' condition reduced inequity subsequently.

Just as liking for the recipient may be a determinant of helping (Daniels and Berkowitz, 1963; Baron, 1971; Pandey and Griffit, 1974) or may be a consequence of helping (e.g. Jecker and Landy, 1969), from the recipient's point of view, offered help may be a reason for liking the donor, which may in turn affect the recipient's later reactions to help. In Regan's (1971) study, subjects received a favour from a liked or disliked confederate, from the experimenter, or received no favour. Later the confederate requested the subjects to do him a favour. Results showed that subjects liked the favour-doer more than the person who did them no favour, and complied with the request of a liked favour-doer more than with the request of a disliked favour-doer, although, Regan cautions, the latter difference was non-significant. In an experiment by Nadler, Fisher and Streufert (1974), more positive reactions were expressed toward a helper who was presented as an ally than toward one who was said to be an enemy.

More definite evidence of the liking-helping relationship was obtained in Gross and Latané's (1974) study. Subjects were helped voluntarily or involuntarily by a confederate, or were given no help. They were later given an opportunity to help the same person, a different person, or to help neither. Results indicated that the helper was liked more than the non-helper, and was liked more when there was an opportunity to help the same person later, than when either a different person or nobody could be helped. When there was a later opportunity for helping, in the case of voluntary aid, liking for the donor correlated positively with the amount of help given later. Gross and Latané suggest that this situation represents a receiving-liking-giving-liking

sequence of events. Thus liking for the donor is simultaneously the consequence of prior help and the antecedent of later help. In their view, so-called reciprocity can be explained on the basis of liking as a mediator without involving a social norm. But this view has been questioned by several authors, mainly because although the helping-liking relationship has been experimentally demonstrated, the liking-later help relationship is somewhat ambiguous. An example of a situation in which liking does not automatically lead to helping is found in Goodstadt's (1971) study. Subjects' liking or dislike for a confederate was made public,or not made public by the experimenter(by way of a statement about the subject's feeling for the confederate). Later, subjects were presented the option of either helping the confederate or working on a more attractive task on their own. It was found that the liked person was given less help than the disliked person in Statement condition, and was given less help in this condition than in the No Statement condition. A supplementary study varying the intensity of the statement (mild or strong) indicated again that less help was given to the liked confederate in the Strong Statement condition than in the Mild Statement condition.

Psychological reactance can account for these results (Brehm, 1966; Wicklund,1974). When a person perceives a threat to his freedom of choice or action, he attempts to maintain or restore his freedom by behaving in a way opposite to expectations. In Goodstadt's study, a public statement about the subjects' liking for the confederate made the former feel compelled to help, aroused reactance and led to less helping when it was most expected (considering the subjects' liking for the other).

Whether or not the donor is liked, and the degree of liking may itself be determined by the nature of the relationship between the recipient and the donor. Bar-Tal, Bar-Zohar, Greenberg and Hermon (1977) examined the effect of the closeness of the recipient-donor relationship on expectation of and response to help. In a questionnaire that presented hypothetical situations, the donor was said to be a parent, sibling, close friend, or acquaintance of the subject, or a stranger. It was found that recipients expressed the least expectation of help, most gratitude when help was offered, and most resentment when it was refused in the case of a donor who was a stranger, and the opposite of these reactions when the donor was a parent.

Using a choice setting, Oskamp and Perlman (1966) and Swingle and Gillis (1968) reported finding that more cooperative choices were made with a partner who was liked more than with one who was liked less, and with a friend than with a stranger. More recently, Braver (1975) used a choice-setting to investigate the effect of liking as a mediator of cohesiveness. Subjects played a power game followed by a one-trial Prisoner's Dilemma game, in cohesive or uncohesive dyads, the assumption being that liking was greater in the former dyads than in the latter. Greater cooperation resulted in both games in cohesive dyads, accompanied by more reciprocation of cooperative choices. Braver concluded that

> " One is more likely to behave benevolently, i.e. to reciprocate or over-reciprocate, toward another whom one likes. "
>
> (Braver, 1975, p.376)

Yet another correlate of liking for the donor is the similarity between the donor and recipient. Among the few studies that have

directly examined this factor is one by Clark, Gotay and Mills (1974). Subjects were helped or not helped by a similar or dissimilar other, and were told about a later opportunity or no opportunity for returning the favour. As expected, more help was accepted from a similar than from a dissimilar other in the 'Opportunity' condition. In the 'No opportunity' condition, less help was accepted from a similar than from a dissimilar other. These findings were explained in terms of anticipated repayment of the favour, and inequity or indebtedness (Greenberg, 1968, 1978). In the case of the similar other, acceptance of help may have been mediated by liking, as indicated in a number of studies that show a positive relationship between similarity and liking (e.g. Heider, 1958; Newcomb, 1961; Byrne, 1971). In the 'No opportunity' condition, despite indebtedness caused by the absence of an opportunity to return the favour, relatively less liking for the dissimilar other than for the similar other might have been responsible for greater acceptance of help from the former donor.

Evidence from some other experiments, however, suggests that the recipient may not always react in this way to a helper who is said to be similar to him. In one phase of a 'stock market simulation' study by Fisher and Nadler (1974), a fictitious pair-mate of the subject helped or did not help him, and was said to be similar or dissimilar to the subject. It was seen that more positive attitudes were expressed toward helpers than toward non-helpers, and toward a similar than toward a dissimilar pair-mate. But ratings of self-esteem in the experimental situation were lower when a similar pair-mate helped than when he did not help. Conversely, self-esteem was higher when a

dissimilar pair-mate gave help than when he did not give help. Fisher and Nadler interpreted this finding by suggesting that the help given by a similar pair-mate was a threat to the recipient's self-esteem, while help given by a dissimilar pair-mate was 'self-supporting' experience. In a more recent experiment using essentially the same setting, Nadler, Fisher and Streufert (1976) have further clarified the role of self-esteem in responding to aid from a similar or dissimilar other. In this study, subjects were classified as high or low on self-esteem as measured by Coopersmith's (1967) inventory. Differences between the various experimental conditions were found to be significant only in the case of high self-esteem subjects, but not in the case of low self-esteem subjects. It was proposed that the 'inferiority and dependency cues' present in accepting help from a similar other were more salient for those with high self-esteem, who, therefore, accepted less help than did low-esteem subjects.

Summarizing the reviewed studies on donor characteristics that have been found to affect the recipient, it can be said that in these experimental situations, the recipient accepts more help from a voluntary than from an involuntary donor, expresses greater liking for and returns more help to a voluntary than to an involuntary donor. He shows these reactions more when the help is in response to his own request than when the help is offered spontaneously or imposed on him by the donor. A potentially powerful recipient also reacts more positively to help from a donor whom he perceives as not using the recipient's power to his own advantage. Moreover, a recipient is more likely to accept help or other prosocial behaviour from, and return the same to, a donor whom he likes than in the case of one he dislikes, but this is true only if no

reactance is aroused by a public statement of the recipient's liking for the donor. In addition, a recipient reacts positively to help from a similar other only if this helping does not hurt the recipient's self-esteem.

II. Characteristics of the Benefit

One rather obvious characteristic of the benefit, namely the amount or magnitude of help, has been investigated in several experiments, and will be discussed in the context of one of the studies in the present research. Other less obvious characteristics, such as the appropriateness of the favour or aid, the cost of aid and the rewards to the recipient, and the type of resource exchanged, have also been studied.

Appropriateness of a favour was found to affect the recipient's reaction in an experiment by Kiesler (1966). Subjects were given a cooperative or competitive orientation through instructions, and were allowed to share or not share the rewards they obtained on a task. Sharing rewards was thus appropriate in the cooperative condition, but inappropriate in the competitive condition. It was observed that a partner who shared rewards under cooperation, and did not share them under competition, was liked more than one who did the opposite. Perhaps this was due to an attribution of good intention to the favour-doer in the 'appropriate' condition.

A second characteristic of the benefit that may affect the recipient's response to it is its cost compared with the rewards obtained by the recipient. Some investigators have compared the effects of

costs versus rewards in helping, and the general indication seems to be that rewards are a more important determinant of the recipient's reaction. For example, Tesser, Gatewood and Driver (1968) found, in a questionnaire study, that recipients expressed gratitude more as a function of the rewards they obtained than as a function of the donor's costs. In a task-performance study by Greenberg, Block and Silverman (1971), there was subsequent helping to reduce inequity caused by larger prior rewards rather than that caused by larger prior costs.

When only the cost of helping is considered, high or low cost aid produces differential response to aid by recipients. This factor was experimentally investigated by Castro (1974), along with the variable of opportunity to give later help to the former donor. Recipients of aid were made to perceive that the help had been given at a high or low cost, and were then given the option of asking for further help. It was found that when there was no opportunity for repayment of the favour, the recipient was less likely to request further help when the cost of helping was perceived to be high than when it was perceived to be low. Castro's explanation was that greater inequity (and therefore greater obligation) was produced under high-cost than under low-cost helping.

In some choice-settings, the cost of making a prosocial choice by foregoing an alternative, more rewarding choice, has been studied, by keeping the essential features of the setting constant while varying the payoff values in the matrix. Cooperative choices in such experiments (e.g. Bixenstine and Blundell, 1966; Smith, 1968; Jones, Steele, Gahagan and Tedeschi, 1968) have been found to be affected by the degree

of costs incurred. In this context, the study by Black, Weinstein and Tanur (1974) comparing self-interest and altruism when the two are in conflict, is relevant. These investigators presented subjects with situations in which they were to indicate which course of action would be expected when the cost of helping to the benefactor, versus engaging in self-interested behaviour, was varied. Other factors like presence or absence of an audience were also included. Subjects' responses showed that the expectation of altruism was affected to a greater extent when the cost of helping was low and when an audience was present, than when the cost of helping was high, with or without an audience.

Perceived cost of helping could also be a function of the amount of resources originally possessed by the donor. Intuitively, the cost of helping would be perceived to be higher to a donor who has fewer resources than to one having more resources. This variable was studied by Gergen, Ellsworth, Maslach and Seipel (1975) by having subjects bet in a 'chance' situation using monetary resources. When they started losing, a fictitious donor, said to possess high or low resources, gave them additional resources. Recipients were later to return the resources in the same amount (equal obligation), with interest (high obligation), or did not have to return the resources (no obligation). It was found that while the degree of obligation did not produce any significant difference in the dependent measures, greater attraction was expressed for the low-resource donor than for the high-resource donor. More resources were actually returned to the former than to the latter. Assuming that the low-resource donor was perceived as incurring a higher cost than a high resource donor, this is contrary to Castro's(1974)

finding cited earlier. A preference for the donor as a partner was shown in a study by Freeman (1977) when the obligation to return the aid was low.

The cost of aid as determined by the resources owned by the donor may also influence the recipient's reactions by affecting his self-esteem, as shown in an experiment by Fisher and Nadler (1976). Using the stock market simulation setting employed in an earlier study, these authors had a fictitious pair-mate give help or not give help to the subject. The pair-mate was said to have high or low-level resources. Findings indicated that subjects evaluated the helper more positively than the non-helper, and the high-resource donor more positively than the low-resource donor. Self-esteem was higher, and there was more self-help, among those who were helped by a low-resource pair-mate than among those who were not helped by this person. Conversely, self-esteem was higher, and there was more self-help in subjects who were not helped by a high-resource pair-mate than among those who were helped by this person. It would thus appear that high-cost aid may be considered 'self-supporting' while low-cost aid may be considered 'self-threatening'.

Another characteristic of the benefit that affects how the recipient reacts is the type of resource exchanged. Foa and Foa (1974,1976) classify resources into six types on two dimensions, concreteness and particularism. Whether a recipient returns an accepted favour, and if he does, in what form he reciprocates, may be determined by the nature of the resource previously received. There is some empirical evidence that this would depend on the discrepancy between the nature of resource

received and the resource to be returned on the dimensions of concreteness and particularism. Teichman and Foa (1975) varied the similarity between the received and returned resource, and found that subjects' responses demonstrated increasing satisfaction with the exchange as the similarity between the two resources increased. In other words, to use Gouldner's (1960) terms, "homeomorphic" reciprocity is favoured by recipients more than "heteromorphic" reciprocity. As an illustration of this fact, Foa and Foa (1974) suggest that in the field of foreign aid, it is more realistic to expect respect ('status' in terms of their resource-classfication scheme) from the recipient nation when the aid is in the form of training and instruction facilities ('information' in their classfication) rather than if aid is in a more concrete form. This is because information is nearer to status than is money or goods, in Foa and Foa's classfication (Foa, 1971; Foa and Foa, 1974, 1976).

To summarize, some experimental studies show that appropriateness and cost of help, and the type of resource exchanged, are samples of benefit characteristics that influence the recipient's response to help.

II. Recipient characteristics

This class includes both more stable characteristics like personality traits, and temporary states of the recipient like lowered self-esteem, felt inadequacy, obligation or indebtedness, and perceived loss of freedom. Not much information is available on the recipient's personality as a determinant of his reactions to aid. In a study by Brewster (1971) using the 16 PF Questionnaire and the MMPI, comparing giving-oriented versus receiving-oriented people, the latter were found

to be no different from the norm on the factors measured by both inventories. In the case of studies using choice-settings, personality factors described under donor characteristics, which were found to correlate with cooperation, can be considered recipient characteristics in experiments that involve a change in the roles of the participants.

Temporary psychological states have been explored more frequently than personality factors as possible determinants of responding to aid. Lowered self-esteem, for instance, has been shown to affect the recipient's acceptance of aid in a number of studies cited earlier (e.g. Fisher and Nadler, 1974, 1976; Nadler, Fisher and Streufert, 1976). Similarly, feelings of inferiority or inadequacy might affect help-seeking by a potential recipient, as indicated by Stokes and Bickman (1974). Subjects were permitted to seek information or ask for direct help on an 'impossible' task from a confederate who was physically attractive or unattractive, and was said to be the experimenter (Role condition), or another subject (Non-role condition). Active help was more likely to be sought from the unattractive person than from the attractive one in the Non-role condition. In the Role condition, only information (but not direct help) was sought from the attractive confederate. These findings were interpreted in terms of the potential recipient's feared loss of self-esteem in asking for help from a physically attractive person who was not necessarily supposed to help (i.e. in the Non-role condition). In another experiment to be discussed later (Morris and Rosen, 1973), felt inadequacy interacted with the magnitude of help given to affect the recipient's reaction to help.

Experienced obligation also determines how the recipient would react, as exemplified by experiments cited earlier (e.g. Castro, 1974;

Freeman, 1977). Gergen, Morse and Kristeller (1973) compared cultures in a questionnaire study with respect to their feelings about various kinds of aid. Responses indicated consistently that aid repayable with interest (generating high obligation) was liked less than aid that could be returned in other forms (generating less obligation). But in the study by Gergen, Ellsworth, Maslach and Seipel (1975) described in the context of cost of aid, the degree of obligation did not affect the recipient's response to a significant degree.

A third psychological state affecting recipient reactions is perceived loss of freedom. If the recipient feels that he is being compelled to act in a specific way (e.g. return a previous favour), he may experience reactance (Brehm, 1966; Wicklund, 1974), and attempt to maintain or restore his freedom by refusing to behave as expected. Several experimental studies have shown this effect quite clearly. Brehm and Cole (1966) reports a study in which subjects were rated for 'first impressions' by a confederate, who then offered them a soft drink (a favour). Later, subjects were asked to rate the confederate and this task was said to be high or low in importance. Results indicated that subjects reciprocated the favour by rating the confederate more highly in the 'low importance' condition than in the 'high importance' condition. The explanation given by Brehm and Cole is that reactance generated by the favour was greater in the latter condition than in the former.

A similar interpretation would apply to the findings by Worchel, Andreoli and Archer (1976). In a set-up closely resembling that of Brehm and Cole, a confederate performed or did not perform a favour

for the subject, and the experimenter attributed the favour-doing to situational characteristics, to donor-recipient interaction, to unique donor characteristics, to unique recipient characteristics, or made no attribution. On a subsequent task, which was said to be high or low in importance, subjects were given an opportunity to return the previous favour. It was observed that subjects were least likely to reciprocate the favour when it was attributed to donor-recipient interaction because it was in this condition that the recipients felt most compelled to return the favour.

Another source of reactance is the recipient's attribution of ulterior motives to the donor, as was found in Goodstadt's (1971) experiment.

In short, while there is no clear evidence of personality factors affecting the recipient's response to help, temporary psychological states like lowered self-esteem, experiences of obligation and inadequacy, and a perceived loss of freedom have been demonstrated to be determinants of reactions to help.

IV. Context characteristics

Such characteristics pertain to situational variables that cannot be included in any of the preceding categories. Most of the factors that were investigated in the present research are context characteristics, and studies related to these specific variables will be described where appropriate. Two kinds of context variables, namely the operation of social norms in the situation, and information about the situation, have been found to be related to the recipient's reaction to help in a few studies.

With respect to social norms, the two most frequently discussed are the norm of social responsibility and the norm of reciprocity, both of which were described in the first chapter. The operation of the reciprocity norm (Gouldner, 1960) as a function of various factors, has been shown in all the studies reviewed thus far, and the norm of social responsibility has been demonstrated in studies related to help-giving. However, very few studies have examined both norms in the same situation. An example of such a study is that by Greenglass (1969). Individuals were first helped or hindered by another person on an evaluation task. Later, they worked with another person who was said to be similar or dissimilar to the former benefactor or harm-doer, or was said to be in need of help. The reciprocity norm would require that subjects act in accordance with past experience, and help the person similar to the former donor, and hinder the one similar to the former harm-doer. The social responsibility norm, on the other hand, would require that the needy person be helped regardless of past experience. Data showed that subjects behaved in accordance with both norms, helping the similar benefactor, hindering the similar harmdoer, and helping the needy person when no similarity or dissimilarity was indicated to them. In contrast to these findings, an experiment by Test and Bryan (1969) to be described later indicated that the effects of modeling by a helper superseded the effects of both the reciprocity and social responsibility norms.

With respect to information about the whole context, a wide variety of factors have been investigated in studies using a choice-setting. Information about the other player's payoffs in addition to one's own (Guyer and Rapoport, 1969), information about the other player's

choices and personality (Wrightsman, Baxter, Nelson and Bilsky, 1972; Miller and Pyke, 1973), whether the 'other' is real or programmed (Komorita, Sheposh and Braver, 1968; Halpin and Pilisuk, 1970) and specific motivational set (Minas, Scodel, Marlowe and Rawson, 1970; Vinacke, 1969) are a few examples of variables that have been found to affect cooperative choices in mixed-motive games.

The preceding general review of recipient-related literature suggests that the realization of the importance of the recipient of aid is now gathering momentum, as reflected in the recent increase in the number of experimental investigations of donor and recipient characteristics, benefit characteristics and context characteristics that might determine the recipient's response to help. It was also pointed out that information on recipient behaviour can be obtained from task-performance studies, from reward-allocation settings that involve sharing of rewards, and from choice-setting experiments that involve responding to prosocial choices of one kind or another. As in the case of almost all areas of social psychological research, a great deal of research is required before a consolidated and generalized statement about the recipient's response to aid can be made. In the present research, the following variables were selected for experimental investigation:

1. Communication of need for help.
2. Information about and presentation of a later opportunity for returning a favour.
3. The amount of help given to the recipient.

4. Statement of and carrying out of an intention to give a specific amount of help.
5. Statement of intention a) unconditionally or b) conditionally.
6. Sex differences in recipient reactions.

These variables were chosen mainly because no definite answer with respect to their effects on recipient reactions has been obtained. Moreover, none of these factors has been employed in the specific choice-setting to be used here, namely the Altruism matrix. The experimental setting used in studying these factors had to be changed at one point from one involving task-performance to one involving making choices. The basic consideration in selecting an experimental setting was that it should allow the recipient's responses to help to be manifested with minimal confounding and ambiguity. Thus, although the setting itself was not meant to be one of the independent variables in this research, the use of the Altruism matrix was expected to shed some light on reactions to aid in a specific choice-setting.

A detailed report of the experiments designed to study these variables is presented in the chapters that follow.

CHAPTER THREE

THE RECIPIENT'S REACTIONS TO HELP IN A TASK-PERFORMANCE SETTING

This chapter describes an experiment designed to investigate the effect of communication of need for help, on the recipient's responses to aid in a task-performance setting.

General Paradigm

In most of the task-performance studies concerned with recipient reactions, the following paradigm is used:

1. A prior situation is set up, in which the donor (usually a confederate) helps or does not help the naive subject, who is thus a potential recipient, who may or may not accept the donor's aid. Other independent variables are generally manipulated in this situation.

2. A subsequent situation, in which the donor-recipient roles are reversed. The subject (the former recipient) now has the opportunity to become the donor of help. The confederate (the former donor) now becomes a potential recipient.

The use of a confederate in such a setting ensures that in the prior situation, help is given or not given as necessary, and in the subsequent situation, the response to help, if given, remains the same for all subjects. Certain features of the task-performance setting used in the present experiment need to be described at this point.

1) The experimental setting involved working on two structured tasks:

a) making paper-boats ("Shallow Water Cargo Carriers", abbreviated as SWCC), described as a mechanical task (Kolb, Rubin and McIntyre,1974).

b) a digit-symbol substitution task, which was described as a mental task.

Specific instructions were given for task-performance and in both tasks, a specific goal had to be achieved by way of a finished product that could be evaluated for quality or accuracy.

2) The nature of help or resources exchanged in the prior and subsequent situations was the same, namely, expertise and time. Clearly, these are abstract resources. The donor in the prior situation completed the task first, and offered to spend time helping the subject. Likewise, in the subsequent situation, the subject was allowed to complete the task first, thus giving him an opportunity to help the confederate. Although the nature of the two tasks was different[1], the resource exchanged was similar.

3) The exchange of resources or helping occurred only once on each task.

4) The 'amount' of help given (by way of expertise and time) in the prior situation was constant for all subjects. Help was either given or not given, with no gradations between these two extremes.

5) Face-to-face communication between the two persons was permitted

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[1] In the course of preliminary experimentation (using picture-construction) for the selection of a suitable task, it was found that having the same task for both the prior and subsequent situations might introduce biases, and might change the subject's interpretation of the helping act. Hence the difference in the nature of the two tasks.

in order to make the situation appear natural. But a direct comparison of ongoing task-performance was prevented by placing a small screen between them.

6) The element of need present in this setting implied that the offered resources were 'needed' for more efficient task-performance. It did not imply a shortage of necessary resources. It is believed that this approach to the concept of need is preferable to a 'deficiency' approach because (i) this kind of need is less severe than when there is a deficit of resources. The potential donor's response to a less urgent need for help could have implications for his reactions to a more urgent circumstance ; (ii) since there is no lack of resource, acceptance of aid is not compulsory.

7) The cost of helping was fairly low. The time spent in helping the recipient could be used in other ways (e.g. relaxing) that may not be very important to the donor.

EXPERIMENT I

The Effect of Prior help/ No prior help and Communication/ No Communication of Need for help on Recipient reactions

Most experiments related to the recipient show that help is more likely if prior aid has been received than if no prior aid has been received (e.g. Goranson and Berkowitz, 1966; Pruitt, 1968; Schopler and Thompson, 1968; Test and Bryan, 1969; Greenberg and Frisch, 1972; Shumaker and Jackson, 1977,etc.). This is in accordance with Gouldner's (1960) norm of reciprocity. A communication of need for

help is essentially an indication of the communicator's dependency, and there are a number of studies that demonstrate dependency as a determinant of helping. For example, Berkowitz and Daniels (1963) found that a highly dependent supervisor in a work situation was given more help by a worker than one who was said to be low on dependency. Later, Berkowitz and Daniels (1964) combined dependency with reciprocity. Subjects in the worker role were helped or not helped by a confederate in the supervisor role, and were subsequently told that the supervisor was high or low in dependency on the worker for winning a prize. Results showed that subjects worked hardest for the supervisor in the prior help/high dependency condition, and exerted the least effort in the no prior help/low dependency condition, indicating the operation of both the reciprocity and social responsibility norms.

Using basically the same experimental situation, Goranson and Berkowitz (1966) reported similar findings. After receiving voluntary or involuntary help from a confederate, or receiving no help, subjects were placed with either the same person or with a different person. Dependency of this person was varied as in the Berkowitz and Daniels (1964) study. It was found that with the same person, subjects receiving prior voluntary help gave more help to a more dependent person, than to one who was not dependent, had helped involuntarily or had not helped. With a different person, the results although statistically non-significant, were in the same direction.

The joint operation of the reciprocity norm and social responsibility norm was shown also in Greenglass' (1969) experiment (Chapter II, p.41) involving both helping and hindrance.

There are ,however, indications in some other studies that the norms might not always operate as expected in all circumstances. In an experiment by Test and Bryan (1969) female college students solving arithmetical problems received help, observed a model helping others without receiving help themselves, observed a model refusing to help, or did not observe any model. Later a physically 'disabled' dependent person was present with half of the subjects, while the remaining subjects had partners with no physical disability. The findings showed that modeling effects were stronger than either reciprocity or dependency effects.

Besides, responding to dependency has been shown to be affected by cost of helping, locus of dependency, and legitimacy (Gruder and Cook, 1971; Schaps, 1972; Gruder, 1974; Schopler and Matthews, 1965; Berkowitz,1969; Field, 1974).

The norm of social responsibility may fail to operate also when the recipient's dependency is ambiguous in any way, as found in some bystander studies (e.g. Darley and Latané, 1970). Yet another factor that might inhibit the operation of both reciprocity and social responsibility is the arousal of reactance (e.g. Brehm and Cole, 1966; Greenberg and Frisch, 1972; Berkowitz, 1973).

All of these experiments have, in general, involved a direct communication of need or dependency, either through experimental instructions, or as a direct request for help by the potential recipient. Whether or not the subject gives help in response to this request is then taken as a measure in most of these studies.

Response to a direct request, however, might be confounded with compliance rather than helping. In order to keep the two responses separate, it would be useful to study reactions to an indirect communication of such a need for help.

This experiment was therefore designed to answer the following question: If a person helps another in one situation, and later communicates indirectly a need for help, is the former recipient more likely to help the former donor in this condition, than if he had not received help on a prior situation, and/or if need for help had not been communicated ? In other words, is a person more likely to give help when governed by the reciprocity norm, or when governed by the social responsibility norm ?

Overview of the Design

The independent variables were: prior help or no prior help; communication or no communication of need for help; and donor's and recipient's sex(a 2 x 2 design for each sex composition).

The dependent variables in the prior situation were: frequency of acceptance of offered help; the amount of help accepted; and latency of acceptance or no acceptance. Those in the subsequent situation were: frequency of later help; the amount of help given; liking for the other person, preference for him as a future work-partner, and 'social distance' from him in terms of closeness of interpersonal relationship; perception of the donor's reasons for helping; and the subject's own reasons for later help or no later help.

Expected outcomes

The major expectations were that in the subsequent situation,

1. Recipients of prior help would be more likely to give later help than subjects not receiving prior help. This expectation is based on the reciprocity norm and is consistent with experimental findings cited earlier.

2. Later help would be more likely in the Communication of need condition than in the No communication of need condition.

Here it is assumed that a communication of need evokes the norm of social responsibility and thereby increases the likelihood of helping.

With respect to the joint effect of reciprocity and social responsibility, the likelihood of subsequent help should be highest in the Prior help- Communication of need condition, and lowest in the No prior help- No communication of need condition. In the remaining two conditions, depending on the salience of reciprocity or social responsibility, helping should be more likely respectively in the Prior help- No communication condition or the No prior help-Communication condition.

No formal predictions were made about sex differences, or with respect to the effect of the independent variables on the other dependent measures.

Subjects: Eighty-four undergraduates of McMaster Univeristy (43 males and 41 females) participated in this study. All subjects were selected randomly from the university student list and were recruited by telephone. Two undergraduates of the same age, one male and one female,

participated as confederates.

Procedure

Upon arrival for the experiment, the confederate (C) and the naive subject (S) were briefly introduced to each other, and asked to sit in chairs that were placed face-to-face across a table. C always sat in the chair that was nearer the experimenter's (E's) table. A small partition placed between C and S permitted conversation but did not allow them to see each other's task-performance. E then presented the following 'cover story' :

> " In this research project, what we are trying to do is to simulate some industrial settings in which two persons are working in the presence of each other. In such settings, you could be working on a mechanical task, or on a mental task that involves some thinking. In this experiment, you will be working on both kinds of tasks. "

This was followed by the presentation of the Prior situation.

Prior situation

E continued to say the following after the 'cover story':

> " We will begin with the mechanical task, and that involves building paper-boats. Just imagine that you are working for a ship-building firm, and that you have been asked to make "SHALLOW WATER CARGO CARRIERS".
>
> " Here is an example of a SWCC" (E shows them one, and adds)- "This is not meant to be a model, but is only to show what a SWCC looks like. "

C and S were then given detailed instructions[1] for making a SWCC, and were asked to practise making one paper-boat following the instructions. Meanwhile E returned to her table. According to pre-

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1 Appendix I.

experimental instructions, C made casual comments during the practice period, and remarked that he/she had done a similar task as a child[1]. At the end of the practice period, C and S were each given an envelope containing SWCC sheets. Just before the task actually began, additional instructions[2] were read to them that mentioned non-competitiveness of the situation, and the possibility of conversing with each other if necessary (thus reducing suspicion caused by the abruptness of the offer of help).

As soon as the task began, E also started a stop-watch. C and S were told that they would get 8 minutes for the task. C had practised the task sufficiently to be able to complete it in approximately 5-6 minutes and at this point, the Prior help/ No prior help variable was manipulated. Whether the experimental session was to be a Prior help or a No prior help condition was decided by drawing lots, and was conveyed to C by writing the condition inconspicuously inside the flap of the envelope containing the SWCC sheets.

Prior help condition: C completed the boats, informed E, and sat back in the chair briefly. E recorded the exact time. After a suitable pause, C addressed S and offered to help:

" I HAVE FINISHED.....CAN I DO SOME BOATS FOR YOU ?"

The latency of S's response was measured by means of a timer

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1 In the absence of such comments, Ss might become suspicious when C completed the task. Moreover, a little casual conversation would make the offer of help more natural than if nothing were said.

2 Appendix I a

that was unobtrusively started at the end of C's offer , and was stopped as soon as S responded. The difference between the two gave a measure of latency. If S accepted C's offer, the latter waited for S to hand over SWCC sheets, the number of sheets yielded being used as a measure of the amount of help accepted. Both persons then continued working as before until the allotted time was over. If S did not accept help, C simply sat back while S continued working on the boats until the time was over.

No prior help condition: C completed the task, informed E, and sat back in the chair doing nothing in particular (except looking around the room, as would a person who was there for the first time). In the event that S would request help, E prepared to record the time and nature of such a spontaneous request. Otherwise, S was allowed to work on the task until the allotted time was over. At the end of the prior situation, the SWCC were removed from the table, and the subsequent situation was presented.

Subsequent situation

This situation opened with the following words from E:

" As I had told you earlier, you will now be working on a mental task. "

C and S were then given instructions for the substitution task[1] and the material to be used (substitution sheets in an envelope) along with a practice sheet. E read the instructions aloud. Briefly, this task involved writing the appropriate symbol for each digit according to a code given on the instruction sheet. Some obstacles were inserted to

1 Appendix II

make the task slightly less simple (e.g. including numbers on the sheets that were not indicated on the code). Following a one-minute practice period and additional instructions[1] (as in the first task), the second task was commenced. As before, 8 minutes were allotted to this task. Unknown to S, C was given two additional substitution sheets, so that when S finished the task, C would still have some sheets to work on or to be helped with. The experimental condition (Communication/No communication of need) was decided randomly and conveyed to C by writing it inside the flap of the envelope containing the substitution sheets.

Communication of need condition: As soon as S had completed the task and had put down the pencil and/or informed E, C was given an inconspicuous signal (the sound of an eraser) and the exact time was recorded. Upon hearing the signal, C looked up at S and said:

"FINISHED ?..... (fingering the incomolete sheets)
I'M NEVER GOING TO GET THESE DONE !....."

This constituted an indirect indication of C's need for help. Immediately after this communication, S's responses were recorded. Initially an attempt was made to record the latency of later help, but it had to be abandoned because of practical problems of measurement. Whenever S offered to help, C accepted.

No communication of need condition: As soon as S completed the task, the time was recorded and E prepared to make a note of any spontaneous offer of help by S. If an offer was made, C accepted. At the end of the task, S was interviewed[2]. The questions were related to other

1 Appendix II a

2 Appendix III

dependent measures mentioned earlier (e.g. liking measures, and perceived reasons for the donor's and subject's helping) and a few 'filler' items. At the end of the interview S was thanked, paid for participation, and asked not to discuss the experiment with anyone.

Results

Data obtained in this experiment were mainly in the form of frequencies which were analyzed by means of a χ^2 test, and where appropriate, by a Fisher exact probability test (Siegel, 1956). An analysis of variance was conducted on the log-transformed latency scores (Winer, 1971). The major results are reported here.

An overall frequency count indicated that acceptance of help in the prior situation was overwhelmingly more likely than non-acceptance. Thirty-nine out of the 44 Ss in the Prior help condition accepted help.

Prior help

A χ^2 test on the frequencies of later help in the Prior help and No prior help conditions showed that in the subsequent situation, helping was significantly more likely when the Ss had received prior help than when they had received no help. Among the 44 Ss who received prior help, 29 gave later help, while none of the 40 Ss who received no prior help gave later help spontaneously. This is indicated in Table I.1.

Insert Table I.1 about here

Communication of Need

When frequencies of later help as a function of communication of need were analyzed, it was found that contrary to expectation, the likelihood of later help was significantly greater when no need was communicated than when need for help was communicated. Among the 40 Ss who were in the Communication condition, only 9 helped subsequently. Among the 44 Ss who were in the No communication condition, 20 helped later while the remaining 24 did not. The overall chi-square was significant evidently because of the difference within the Communication conditions, as shown in Table I.2.

Insert Table I.2 about here

It should be mentioned here that during the experiment, some Ss in the intended Communication condition offered later help very quickly after task-completion, leaving no time for the intended Communication manipulation. Therefore, these Ss had to be included in the No communication group[1]. A chi-square test after excluding these cases left the basic result unchanged. Later help was still significantly more frequent under No communication than under Communication of need.

The results with respect to the interaction of Prior help and Communication of need were somewhat ambiguous. Since there was no case of spontaneous later help under the No prior help condition, it was not possible to properly test the relative salience of the norm of social responsibility and reciprocity, when the two operated jointly.

1 This happened in the case of 3 males and 1 female. This accounts for the difference in the number of male and female subjects in the sample, indicated on page 50 .

Table I.1. Frequency of Later help/ No later help

	Prior help	No prior help	
Later help	29	0	29
No later help	15	40	50
	44	40	84

$\chi^2 = 21.091$ df= 1 ($p < .001$)

Table I.2. Frequency of Later help/ No later help in Prior help condition under Communication/ No communication of Need

	Communication	No communication	
Later help	9	20 *	29**
No later help	11	4	15
	20	24	44

$\chi^2 = 5.53$ df = 1 ($p < .02$)

---

* Excluding 4 Ss: $\chi^2 = 5.23$ df = 1 ($p < .05$)

** Considering only Later help Ss: Difference between Communication/No communication of need:

$\chi^2 = 4.17$, df = 1 ($p < .05$)

Sex differences in later help were also found. While male recipients and female recipients did not differ between themselves in this respect, the sex composition of the donor-recipient dyad had a significant effect. In same-sex dyads the likelihood of later help was significantly greater than that of no later help, as shown in Table I.3. Later help in these dyads was almost three times as likely as no later help.

Insert Table I.3 about here

Analyzing the frequencies of later help and no later help under Communication and No communication of need separately in the different dyads, it was found that considering each sex composition; a significant later help/no later help difference occurred only in the case of male donor-male recipient dyads. Table I.3 (a-d) presents these differences.

Insert Table I.3(a-d) about here

The sex composition of the dyad was found to have an effect on the latency of acceptance of help in the Prior situation. An analysis of variance was conducted on the log-transformed latencies of acceptance considering those who gave and those who did not give later help, with the four levels of sex composition (male donor-male recipient, male donor-female recipient, female donor-female recipient, and female donor-male recipient dyads). The results of an unequal-n's analysis of variance by the unweighted-means technique (Winer, 1971) are presented in Table I.4.

Insert Table I.4 about here

Table I.3. Sex composition: Frequency of Later help/ No later help in Same-sex Dyads

	Later help	No later help	
Obtained Frequency	17	6	23
Expected Frequency	11.5	11.5	

$\chi^2 = 5.26$; df = 1 ($p < .04$)

Table I.3 (a-d) Sex composition: Frequency of Later help/ No later help in the different dyads

a) Male donor-male recipient dyads

	Need communicated	Need not communicated
Later help	1	8
No later help	3	0

Fisher exact probability: p = .018

b) Male donor-female recipient dyads

	Need communicated	Need not communiated
Later help	3	3
No later help	2	2

p = .738 (n.s.)

c) Female donor-female recipient dyads

	Need communicated	Need not communicated
Later help	3	5
No later help	2	1

Fisher exact probability: p = .425(n.s.)

d) Female donor-male recipient dyads

	Need communicated	Need not communicated
Later help	2	4
No later help	4	1

p = .093 (n.s.)

Table I.4. Sex composition: Latency of Acceptance and Later help/ No later help in different dyads

(Analysis of Variance on Log-transformed Latency scores)

Sex composition:		$M_d - M_r$	$M_d - F_r$	$F_d - F_r$	$F_d - M_r$
Later help	$\bar{X}$:	.431	.738	.349	.782
	SD:	.281	.229	.408	.492
	n:	8	6	8	6
No Later help	$\bar{X}$:	.651	.647	.302	.378
	SD:	0.	.324	.212	.387
	n:	1	4	2	4

Summary of Analysis of Variance (Unequal n's)

Source of variation	SS	Df	MS	F	
Total.....		38			
Between subjects					
A. Sex composition	1.638	3	.546	4.439	$p < .01$
B. Later help/ No later help	.179	1	.179	1.447	n.s.
A x B	2.397	3	.799	6.496	$p < .005$
Error	3.797	31	.123		

A notable feature of these results is that both the longest and shortest latencies of acceptance were found among subjects who did not give later help. Female donor-female recipient dyads accepted help most quickly, and male donor-male recipient dyads took the longest to accept help, but both groups did not give later help. While sex composition had a significant main effect and an interaction with later help/no later help, there was no significant difference between the latencies of acceptance among those who gave and those who did not give later help.

Other dependent measures involved questionnaire responses. It was found that ratings of liking for the other person (confederate), preference for him/her as a future work-partner, and social distance were around the neutral point of the scale on an average, in all experimental conditions. In response to the question regarding S's perception of C's reason for helping, the majority of subjects replied that C helped because he/she had nothing else to do, having completed the task. Only 6 out of 41 Ss mentioned a help motive. Reasons for accepting the donor's offer of help involved mainly the statement that the recipients thought it was 'all right' to do so, whereas the most common reason mentioned for refusal of help was that Ss thought they could finish the task on their own. With respect to reasons for later help, Ss were about equally divided between reciprocity reasons (e.g. "because he/she had helped on the first task"), non-competitive reasons (e.g. "it was a joint work situation, not an individual one"), and indirectly need-indicative reasons (e.g. "the other person had not finished, while I had"). Ss did not give later help gave the following reasons about equally often: they did not think about it, they did not think they were allowed to help,

and they thought they might be interfering with the other person's performance. In all, there were no noteworthy differences between the experimental conditions, nor sex differences, on any of these measures, but the subjects' responses do provide some explanation for their behaviour.

Discussion

This experiment showed the operation of the reciprocity norm (Gouldner, 1960), thus adding to evidence for this norm provided by other studies using different tasks. One difference between the present experiment and other studies is that in most of the previous experiments, a specific request for aid was made in the subsequent situation, and responding to this request was also considered an indication of reciprocity. In this experiment, however, reciprocal helping occurred without a direct request by the former donor. In fact, an appeal for help (even an indirect one) lowered rather than raised the likelihood of helping by the former recipient. Although reciprocity is the most obvious explanation for this finding, a second interpretation for the same finding can be given in terms of equity theory (Homans, 1961; Adams, 1965; Walster, Berscheid and Walster, 1973). As discussed in the introductory chapter, inequity caused by unsolicited aid was reduced by the recipient's return of the favour on the subsequent task.

Some authors would also explain this finding in terms of modeling. In Test and Bryan's (1969) study cited earlier, modeling effects on help-giving were stronger than that of dependency or reciprocity. Other studies (Hornstein, Fisch and Holmes, 1967; Wagner and Wheeler, 1969; Harris, 1971) also show that help-giving may be influenced by observing

a helpful model. According to Hornstein (1970) helpful models may make the observer aware of certain ways of behaving that were not obvious to him before, and may point out the rewards and costs involved in such behaviour. In the present experiment, the fact that most subjects receiving prior help reciprocated, and none of those who received no help offered later help spontaneously, might be taken as an indication of modeling effects. Thus in the No prior help condition, the absence of later helping might have been due to the subjects not being aware of the possibility of giving help, rather than being due to apathy or unhelpfulness of the subjects.

The second major finding in this experiment was the effect of communication of need for help. Subjects were less likely to give subsequent help when the former donor communicated a need for help than when he/she did not communicate such a need. It would appear that for some reason the norm of social responsibility did not operate in this situation. If this had been due to inattention of the subject to the confederate's communication, one would find no more than a chance difference between the Communication and No communication conditions. However, the results showed a reversal of the expected effect, the likelihood of later help being significantly higher when need was not communicated.

The most plausible explanation for this finding would be the arousal of reactance (Brehm, 1966; Wicklund, 1974). The recipient of help may feel that his freedom has been threatened under various circumstances (e.g. Brehm and Cole, 1966; Nemeth, 1970 b; Goodstadt, 1971; Berkowitz, 1973); Worchel, Andreoli and Archer, 1975). Berkowitz(1973) describes the state thus:

> " .... reactance is aroused when a person learns that someone is dependent upon him for help, and this reactance could lessen the potential helper's willingness to aid the dependent individual. "
>
> (Berkowitz, 1973, p.311)

The communication of need in this experiment might have produced just such a state in the former recipient, thus accounting for the lower likelihood of helping in this condition.

With regard to sex differences in responding to offered help, it was observed that the difference in the likelihood of reciprocity and no reciprocity was greater in same-sex dyads than in mixed-dyads. This finding may be attributed to a greater propensity to help a similar other than a dissimilar other. More striking than this is the finding on sex differences related to latency of acceptance of help. In the present context, latency may be considered an index of willingness of the recipient to accept the offered assistance. It was found that female recipients with a female donor were the most willing to accept help (had the shortest latency) but were unlikely to give later help. Male recipients with male donors, on the other hand, were the least willing to accept help (had the longest latency) and were unlikely to give later help.

This sex difference may be explained on the basis of sex roles learned in the course of socialization. While there is no direct evidence on sex differences in responding to help, several studies report that females generally receive help more frequently than do males (Pomazal and Clore, 1973; Bickman, 1974; Latané and Dabbs, 1975; McGovern, Ditzian and Taylor, 1975,etc.). This general observation has been

interpreted in terms of the female role as being more dependent and therefore more in need of help than males (Mischel, 1966; Whiting and Edwards, 1973). It has been demonstrated that socialization effects make "help-seeking" a feminine quality and "attention-seeking" a masculine one (Whiting and Edwards, 1973). In the experiment reported here, the stereotype of the more dependent female might have made it more legitimate for her to accept help without feeling obligated to return it, an effect that does not apply to males.

With respect to other dependent measures, the absence of noticeable variations as a function of experimental treatment might be due to the subjects' inability to make definite judgments about the other person (on liking and perceived motives for helping) in the course of such a short interaction.

The reciprocity effect obtained in this experiment was subsequently found also in another experiment (not reported here) using the same task-performance setting. Having examined one situational factor, attention was turned to the next variable of interest. It was anticipated that a task-performance setting would not be suitable for investigating other variables[1], thus necessitating the use of a different setting.

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1 A series of pilot studies at the beginning of this research, involving a picture-construction task, included an exploratory study of the variable to be discussed next. It was at that stage that the inappropriateness of a task-performance setting for this variable and other factors was realized.

CHAPTER FOUR

THE RECIPIENT'S REACTIONS TO HELP IN A CHOICE SETTING - I

Interdependent Choices

In the last chapter, the recipient's reactions to prior help and a communication of need for help were studied in a task-performance setting. It was pointed out that although this setting was appropriate for the study of these two variables, it would be unsuitable for the next variable of interest, namely, information about and presentation of an opportunity to return a favour. From the point of view of manipulation of independent variables and the measurement of dependent variables, a choice-setting using an Altruism matrix was considered suitable for our purposes. As depicted in the review of literature, important information about the person who is in a position equivalent to the recipient's can be gleaned from a number of choice-setting experiments. In essence, such settings exemplify one kind of interpersonal exchange of resources, in which behaviour can be studied in terms of rewards and costs, an approach that is being taken to helping behaviour in the present context. Nemeth (1970a, 1972) describes how choice settings like the Prisoner's Dilemma game have been used to examine reciprocity, and how certain aspects of the situation using such a game may influence the occurrence or non-occurrence of reciprocity in cooperative choices. Meeker (1971) discusses at length how exchange theory can be applied to the study of any interaction involving reciprocity, distributive justice, and altruism or social responsibility.

Games and bargaining situations are examples of choice or

decision-making settings that have been commonly employed for the study of conflict of interests in social exchange. From this point of view as Meeker (1971) succinctly describes it, a game is

> ".....a situation in which the consequences of the alternative are not only a result of the decision of the actor.....but also of decisions of one or more other persons. Each person has preferences among the possible consequences of acts. Usually, a 'game' is a conflict situation in the sense that the outcome most preferred by one actor is not the outcome most preferred by the other(s)....."
>
> (Meeker, 1971,p.488)

One approach to games is that of optimal strategy, which has been explained in terms of formal mathematical models and is known as game theory (von Neumann and Morgenstern, 1947; Rapoport, 1973). It should be made clear at this point that the present research does not deal with the type of games encompassed by mathematical game theory. The approach that will be adopted here is the exchange theory approach, by which it is meant that behaviour will be discussed in terms of rewards and costs involved in the available choices, and not in terms of optimal choice strategy for conflict resolution. In short, we will be concerned with interpersonal behaviour. To simplify our study, a helping situation will be likened to a two-person, non-zero-sum, in which each participant has some wins and some losses, as distinguished from a zero sum-game in which one person wins all at the cost of the other losing all.

Translated into terms of equity and social exchange theory (Homans, 1961; Thibaut and Kelley, 1959), in a helping situation the helper incurs some cost in making a choice that confers a benefit or reward on the potential recipient. The latter, in his turn, may choose

to accept or refuse the benefit, and may decide to behave or not behave benevolently on a subsequent occasion, when the former recipient is in the position of a donor. The definition of altruism in the present context follows MacCrimmon and Messick's (1975) view of "choosing so as to increase the payoffs to the other unit" (p.88). The following remark made by these authors also applies to the situation that will be employed in the present series of experiments:

> " Altruism would entail self-sacrifice if you were at an advantage, but would require only an improvement for the other if you were at a disadvantage. "
>
> (MacCrimmon and Messick,1975, p.96)

As pointed out in the review of recipient literature, games have usually been used to study cooperation and competition in conflict resolution. To the extent that cooperation is a form of prosocial behaviour as is helping, and to the extent that a cooperative choice may not preclude altruism (e.g. Vinacke, 1969), some of the correlates of cooperation found in game studies cited earlier may also be related to the choices of a person in response to generous or helpful choices by another. In view of these and other methodological considerations a matrix was chosen for the present purposes that was essentially parallel to a typical helping situation. This matrix will be called the Altruism matrix, and is described below.

The Altruism Matrix

The payoff structure of this matrix is as follows, with the left-hand number in each cell representing the recipient's reward, and the right-hand number in each cell representing the donor's reward.

		Donor	
		A	B
Recipient	X	1 10	2 2
	Y	1 1	2 2

The donor can choose either column A or column B, A being the more helpful or generous choice since it 'offers' the recipient 10 points while giving the donor only 1 point. Column B, while allowing both persons equal rewards, deprives the recipient of a possible gain of 8 points. By choosing B, therefore, the donor 'withholds' rewards from the recipient. The latter can choose either row X or row Y, the former signifying an 'acceptance' of 10 points (or 2 points) and the latter signifying a 'refusal' of this reward.

From the point of view of power and dependence, the donor may be said to exercise "fate control" (Thibaut and Kelley, 1959) over the recipient, because he can determine both his own and the recipient's outcome. The recipient, on the other hand, is dependent on the donor for rewards. Other than affecting his own outcomes (by accepting or refusing), there is nothing the recipient can do to change the donor's outcome in any way. Thus the donor is more powerful than the recipient in terms of control. Paradoxically, however, the powerful person gets a small reward compared to the size of the reward he can make available to the recipient. The weaker person is more likely to benefit from the interaction, depending on what the powerful person chooses.

Terminology

The following terms were used (but not provided to the subjects) to operationalize the choices made in the Altruism matrix:

Choice A by the donor - Offer.
Choice B by the donor - Withhold.
Choice X by the recipient - Accept.
Choice Y by the recipient - Refuse.

Joint choices were labelled as combinations of these terms, e.g. Offer-Accept (cell AX), Withhold- Refuse (cell BY), etc. In the present research, only the positive choices (those involving Offers and Accepts) were to be considered. The labels mentioned above, while not claiming definite motives for the choices, are probably good indications of the most likely motives. In the case of some joint choices, the labels might appear semantically illogical (e.g. acceptance of a withhold choice as represented by cell BX), but they had to be used where necessary for the lack of better terms.

General Paradigm

The paradigm followed using the Altruism matrix was essentially the same as for the task-performance setting, and consisted of

1. A prior situation, during which the donor made "Offer" or "Withhold" choices which the recipient "Accepted" or "Refused". There were 25 trials in this situation (each trial corresponding to a choice by both persons), which made up the first half of the experiment.

2. A subsequent situation, in which donor-recipient roles were reversed. There were 25 trials also in this situation, which constituted the second half of the experiment.

Certain characteristics of this choice-setting as distinguished from those of the task-performance setting need to be described.

1) There was no structured task to be performed. Instead, subjects were to make choices which led to certain rewards.

2) The nature of the resources exchanged in the prior and subsequent situations was the same, namely, points that were worth some money. In the task-performance setting, the resource was abstract but in the present choice setting, it was more concrete.

3) The exchange of the resource took place, not once, but over a number of trials.

4) In both the prior and subsequent situations, help-giving was not an all-or-none affair, but rather, the 'amount' could vary depending on the proportion of Offers and Withholds made by the donor.

5) Face-to-face communication between subjects was not permitted, but some form of communication was expected to occur through the choices made by both subjects.

6) The element of 'need' in this setting was similar to that in the task-performance experiment. That is, there was no 'deficiency' of resources, since no matter what choice was made, the recipient would receive some reward. However, the resource was 'needed' for a more efficient attainment of the goal (in this case, the accumulation of rewards).

7) The cost of helping (by way of an Offer choice) was relatively small It would cost the donor 1 point if he made an Offer, thereby allowing the recipient a reward of 8 points.

As stated earlier, the choice setting was selected purely out of methodological considerations. Such a setting facilitates the manipulation of the independent variables of interest in the present research, avoids the presentation of credible 'cover stories' that would

be needed in the case of a task-performance setting, and would probably reduce the likelihood of suspicion among subjects. Such a choice-setting affords more easily quantifiable measures of the recipient's behaviour, compared to a task-performance setting. Moreover, while it would be very difficult to find a single task appropriate for all variables, the choice setting is more versatile in this respect.

In view of all these advantages, an Altruism matrix was used to study the effect of information about and presentation of an opportunity for reciprocation of a favour. Two experiments related to these variables will now be described.

EXPERIMENT II

The Effect of Information/ No information about, and Presentation of an Opportunity/ No opportunity to Reciprocate, on the Recipient's Reactions

(Simultaneous Choices)

Several experiments demonstrate that the recipient's response to a favour, aid or gift is influenced by an expectation of a future opportunity for reciprocation. Anticipation of such an opportunity may have two components: there is a chance to return the favour, and there is an anticipation of continued interaction with the former benefactor.

The first component is evident in the findings of Greenberg and Shapiro (1971). Subjects accompanied by a confederate role-played persons with a visual and physical handicap, respectively, and were allowed to give help to or seek help from each other. Some subjects

were made to anticipate, and other subjects were not made to anticipate, a later occasion for returning the favour. As expected, subjects were found to be more likely to ask for and accept help in the 'Opportunity' condition than in the 'No opportunity' condition. These results were said to fit Greenberg's (1968, 1978) theory of indebtedness as a mediator in accepting help. It is interesting that Morris and Rosen (1973), adopting essentially the same procedure, did not find a significant difference in acceptance of help between the "Opportunity" and "No opportunity" conditions.

In the study by Clark, Gotay and Mills (1974), the 'Opportunity' factor interacted with the similarity of the donor to the recipient. Recipients were found to accept more help from a similar donor than from a dissimilar donor, when they anticipated no opportunity for returning the favour. Using a task-performance setting, Castro (1974) found that recipients liked the donor more when there was an opportunity for reciprocation than when there was no opportunity for returning the favour. They were also more willing to seek future aid when there was an opportunity to help either the donor or another person, than when nobody could be helped.

In a more recent experiment, Greenberg and Bar-Tal (1976) presented a later opportunity for helping without manipulation of prior anticipation. The authors found that when the second opportunity arose, subjects spent more time on a task helping one who had given them prior help than one who had not helped them. The amount of help given was also varied in this study, but was found to have no significant effect. The conclusion was that indebtedness stems, not from the amount of help received, but from the fact that it was given.

A fairly clear demonstration of the effect of indebtedness as a mediator of response to aid was given by Shumaker and Jackson's(1977) study, employing Greenberg and Shapiro's (1971) paradigm, but also actually presenting or not presenting an opportunity for reciprocation. After receiving prior help, subjects were subsequently provided with an opportunity to help the same person, another person, nobody, or helping was blocked with the same person. The results of this study indicated that indebtedness is best removed by returning the favour to the same person.

Examples of the effect of the second component of the 'Opportunity' variable, namely, anticipation of continued interaction, are obtained in the findings of some other experiments. For instance, in a negotiation setting, Marlowe, Gergen and Doob (1966) manipulated the expectation of a confrontation between participants after the bargaining. Subjects showed more cooperation when they expected such confrontation, than when they did not expect it. Similarly, Gruder (1970) found subjects making fewer demands of the opponent in a bargaining situation when they believed that they would have future discussions with him, than when they were not made to believe that such discussions would take place.

Yet another experiment by Slushing, Roering and Rose (1974) compared cooperative choices in single plays of the Prisoner's Dilemma game, Chicken, and a No Conflict game. Subjects were either committed to future interaction with the other player, or were not committed. Among other things, it was found that committed subjects cooperated more than non-committed subjects. Between games, cooperation was most likely in the 'Committed' condition in the No Conflict game and least likely in the Prisoner's Dilemma game.

In Gary Shapiro's (1975) experiment, pairs of subjects were asked to distribute rewards for a task. One of the dyad members was said to have a higher input than the other, and subjects were told either that they would meet each other again later for another task, or that they would not meet each other since the subsequent task would be performed individually. It was observed that when future interaction was anticipated, those who had a higher input allocated equal rewards (that is, were generous), but when future interaction was not anticipated, rewards were distributed equitably. Very similar results were reported by Grumbkow, Deen, Steensma and Wilke (1976).

All of these experimental findings indicate in general, that potential recipients react more positively to help or a favour when they expect to have a chance to return the good turn, than when they expect no such opportunity. In most of these studies, with the exception of that by Shumaker and Jackson (1977), while the anticipation of future opportunity was manipulated, such an opportunity was not actually presented. In order to see if anticipation is indeed the determinant of subjects' prior and subsequent response to aid, the opportunity should be provided and subjects' behaviour should be observed. This procedure was adopted by Gahagan and Tedeschi (1969) using a power matrix, although their study did not involve the 'Opportunity' variable as defined in the studies cited above. Subjects were either told or not told that they would switch power roles midway through the experiment; those who were told about the change did actually switch roles. Some of those who were not told about the change also switched roles, and the remaining subjects, who had been unaware of any change, continued in the same roles. Results showed

that both the anticipation of a role-reversal and an actual role-reversal produced a lower rate of cooperative choices than did the complete absence of role-reversal.

This method may be employed using an Altruism matrix to examine the effect of the 'Opportunity' variable , which was the purpose of the present experiment. The question to be answered here was: If a person offers help to another, and both persons are told about an opportunity to return the favour, would the latter be more likely to accept help in this condition, than if they are not told about a subsequent opportunity ? When the opportunity actually arises, are those who anticipated it more likely to return the favour than those who did not know about it ?

Since no information on help-giving (i.e. the proportion of Offer choices) in an Altruism matrix was available, it was decided to study both the donor and recipient with respect to the question posed above.

Design

The independent variables studied in this experiment were: information/ no information about a subsequent opportunity; opportunity/ no opportunity (manipulated by way of a switch or no switch of donor-recipient roles; donor's/ recipient's sex; trials, taken in blocks of five.

Thus the experiment had a 2(Information) x 4 (Sex composition) x 5 (Trial blocks) factorial design in the prior situation, and a 3 (Information and switch) x 4 (Sex composition) x 5(Trial blocks) design in the subsequent situation. There were repeated measures on the trial-

blocks factor.

The dependent variables in this experiment were: the proportion of (i) Accept choices by the recipient, (ii) Offer choices by the donor, (iii) joint Offer-Accept outcomes, (iv) Accepts following an Offer choice, (v) Offers following an Accept choice, (vi) Accepts following an Offer-Accept outcome, and (vii) Offers following an Offer-Accept outcome. In addition, ratings of liking, preference for the other as a future work-partner, preferred social distance from him/her; perception of the donor's generosity/lack of generosity; and perceived reasons for the other's choices, were also included as dependent measures obtained through questionnaires.

Expected outcomes

The following effects of the major independent variables were expected to occur:

1. In the prior situation, the proportion of Accepts (and Accept-related choices) will be greater in the Information than in the No information condition. In the subsequent situation, the proportion of Offers (and Offer-related choices) will be higher in the Information and Switch than in the No information and Switch condition.

This expectation is based on findings showing the effect of indebtedness (Greenberg, 1968, 1978; Greenberg and Shapiro, 1971; Castro, 1974; Shumaker and Jackson, 1977) and of expected continued interaction with the donor (Gary Shapiro, 1975; Grumbkow, Deen, Steensma and Wilke, 1976). In addition, it was expected that, in accordance with the reciprocity norm (Gouldner, 1960) recipients in the prior situation

would return the favour subsequently. Since more Accepts are expected to be made in the Information condition than in the No information condition, reciprocation by way of more Offers would also be higher in the Information and Switch condition than in the No information and Switch condition in the subsequent situation.

2. In the prior situation, the proportion of Offers (and Offer-related choices) will be greater in the Information condition than in the No information condition. In the subsequent situation, the proportion of Accepts (and Accept-related choices) will be higher in the Information and Switch condition than in the No information and Switch condition.

The rationale for this prediction is that donors, expecting the favour to be returned, would be more likely to be generous in the Information condition. In the subsequent situation, as the recipient, the former donor would now feel justified in making a equivalent proportion of Accepts.

With respect to the effect of actual presentation of an opportunity for reciprocation, it was expected that the proportion of offers in the two Switch conditions would be lower than that in the No Switch condition. Such a prediction is based on Gahagan and Tedeschi's (1969) study involving the effect of power-reversal.

Subjects: Sixty pairs of subjects, who were first and second-year undergraduates at McMaster University, participated in this experiment. They were recruited by telephone after a random selection from the university student list.

Apparatus: The Altruism matrix (p.70) was displayed on a board that

was painted red on the recipient's side and yellow on the donor's side. The matrix was presented on each side on a square divided into four cells, with a diagonal running through each cell. The payoffs for Red (recipient) and Yellow (donor) were displayed within these cells in their respective colours. In addition, each person's own payoff was shown above the diagonal with the other person's payoff below the diagonal, in each cell. Yellow's side was provided with two buttons, one for each column choice, while Red's side had two buttons, one for each row choice. Ss had to make their choices by pressing one of the two buttons, which would light up the corresponding lights on a switchboard placed on the experimenter's table. E would then signal to both Ss the common choice (the cell corresponding to the joint choice by the donor and recipient). A light in the center of the appropriate cell would come on, indicating the payoffs for that trial to the Ss.

Procedure

Subjects were scheduled in pairs for each experimental session. Upon arrival they were briefly introduced to each other, randomly assigned to the Red and Yellow role, and were seated on the appropriate side of the apparatus. They were then asked to read an instruction sheet[1] which described in detail the apparatus and procedure. Following this, Ss were given two practice trials to ensure that they had understood the procedure thoroughly. Before the experiment was begun, the Information manipulation was carried out.

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1 Appendix IV

Information condition: Ss were told:

> " You will have a total of 50 trials in this experiment. But at the end of trial 25, you will change places, so that Red comes over to the Yellow side, and Yellow comes over to the Red side. "

No information condition: Ss were told:

> " You will have a total of 50 trials in this experiment."

The experiment was then commenced. The first 25 trials constituted the prior situation. E called out the trial number, both Ss made their choice simultaneously, the common choice was signalled to them, and the points obtained were recorded on the Point record sheet provided to Ss for that purpose. The points were added up and verified after trial 10, 20 and 25. At this stage, Ss were asked to stop and fill out a questionnaire[1]. Upon completion of this questionnaire, in the Information condition Ss were asked to change places, retaining their point record sheets. In the No information condition, half of the Ss were asked to change places (Switch condition)[2], while the other half were asked to continue with the experiment as before.

The next 25 trials which constituted the subsequent situation, were carried out in the same manner as the prior situation. At the end of the 50th trial, the points were added over all trials, and total scores were announced. This was followed by an administration of the same questionnaire[3] as before with slight alterations. An open-ended 'comments' section at the end of the questionnaire was expected to bring out any information not included elsewhere in the questionnaire. At the end of

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1 Appendix V a - 1st Questionnaire.

2 This was decided randomly by drawing lots while Ss were filling out the questionnaire.

3 Appendix V b - 2nd Questionnaire.

the experimental session, Ss were encouraged to discuss their choices openly with E . They were then paid and thanked for participation, and asked not to give the details of the experiment to other students.

Results

In the prior situation, 20 pairs of Ss were run in the Information condition, and 40 pairs in the No information condition. In the subsequent situation, there were 20 pairs each in the Information and Switch, No information and Switch and No Switch condition.

The proportion of Accepts, Offers, joint Offer-Accept outcomes, and other related choices within each 5-trial block was computed separately for the first and second half of the experiment.

Since the number of subjects in the two Information conditions was unequal in the prior situation, an analysis of variance in the various choice-measures for unequal n's (unweighted-means solution) was conducted (Winer, 1971), while in the subsequent situation a 3 x 4 x 5 analysis of variance (repeated measures on one factor) was conducted.

The results of these analyses demonstrated very consistent patterns of the effects of the independent variables, although they did not reach a statistically significant level.

Information/ No information (Prior situation)

In the case of all choices, the proportion on an average was higher in the Information than in the No information condition. Thus as expected, the recipient made more Accepts and Accept-related choices when told of a later change of donor-recipient roles. Similarly, donors made more Offers and Offer-related choices when told about a subsequent

switch of roles than when they were not informed about such a change. The average proportions of choices are presented in Table II.1.

Insert Table II.1 about here

As this table shows, the largest discrepancy between the two Information conditions occurred in the case of Offers following an Offer-Accept outcome, the proportion of which was over twice as large in the Information than in the No information condition.

Switch/ No switch(Subsequent situation)

Table II.1 also shows average proportions of the choice measures in the subsequent situation: The proportions of Accepts, Offers and Accepts following an Offer were greater in the Switch condition than in the No switch condition. But in the case of other choice measures, the proportions were greater in the No switch condition, than in the Switch condition.

Comparing the two Switch conditions between themselves, it was found that mean proportions of all choice-measures were consistently higher in the Information and Switch condition than in the No information and Switch condition. The prediction in this respect was borne out.

Another noteworthy observation was that without exception, the proportion of all choices was smaller in the subsequent situation than in the prior situation, in the two Switch groups. Thus recipients who changed their role with or without information made a smaller proportion of Offers and related choices in the subsequent situation,

Table II.1 Average Proportions of Choices in the Information/Switch conditions

Choice measure	Prior Situation		Subsequent Situation		
	Information	No information	Information & Switch	No information & Switch	No Switch
Accepts	76.6 %	72.4 %	75.6 %	67.0 %	70.6 %
Offers	42.3 %	35.9 %	39.6 %	34.4 %	35.8 %
Joint Offer-Accept	34.4 %	25.3 %	25.4 %	17.9 %	20.8 %
Accepts following an Offer	35.8 %	24.9 %	32.4 %	22.1 %	26.2 %
Offers following an Accept	32.9 %	25.5 %	30.9 %	21.8 %	26.7 %
Accepts following an Offer-Accept	28.7 %	17.3 %	27.4 %	14.1 %	19.1 %
Offers following an Offer-Accept	25.1 %	12.1 %	20.1 %	9.4 %	15.7 %

compared to the proportion of Offers and Offer-related choices made by donors in the prior situation. Likewise, donors who switched roles with or without prior information made fewer Accept-related choices in the subsequent situation compared to the proportion of such choices made by recipients in the prior situation.

Sex composition

When all four sex compositions were compared, namely, male donor-male recipient, female donor-female recipient, male donor-female recipient and female donor-male recipient dyads; differences between these groups depended on both the experimental treatment and the particular dependent measure under consideration. Sex differences were examined, therefore, from the viewpoint of mixed-dyads versus same-sex dyads, male donor-dyads versus female-donor dyads, and male recipient-dyads versus female recipient-dyads. The mean proportions for all levels of sex composition are presented in Table II.2 (a-d).

Considering mixed verus same-sex dyads, all choices, on an average, were in higher proportion among mixed dyads than among same-sex dyads in the Information condition (Prior situation). With the exception of Offers following an Offer-Accept outcome, this was true also for the No information condition in the Prior situation. However, this direction was reversed in the subsequent situation in the case of the two Switch groups. Overall, the proportion of all choices was higher among same-sex dyads than among mixed dyads in the Information and Switch, and No information and Switch condition (with the exception of two measures). In the No Switch condition, the proportions were higher

among mixed dyads, as was the case in the prior situation. These proportions are shown in Table II.2 (a).

Insert Table II.2(a) about here

Considering the donor's sex, in the Information condition, the proportion of Offers, joint Offer-Accept outcomes, and Offers following an Accept was greater among male donor-dyads, but the proportion of all other measures was greater among female donor-dyads. In the No information condition, most of the choices were in higher proportion among the male donor-dyads. Essentially the same trend was found for choices in the subsequent situation, in the case of Information and Switch and No Switch conditions. In the No information and Switch condition, most choices were in higher proportion among female donor-dyads. These proportions are indicated in Table II.2 (b).

Insert Table II.2(b) about here

When the recipient's sex was taken into account, the proportion of most of the choice measures was, in general, higher among the female recipient-dyads than among male recipient-dyads in the prior situation. This was true for both the Information and No information conditions. In the subsequent situation, the difference was maintained in this direction. There were, of course, a few exceptions to this finding, as Table II.2 (c) shows, but the overall trend was for females to be given more Offer-related choices, and for females to make more Accept-related choices, than males, whether or not they anticipated a future opportunity to return the favour, and whether or not the opportunity was actually

Table II.2 (a) Sex Differences in Average Proportions of Choices: Type of Dyad

Choice measure	Type of Dyad	Prior Situation: Information	Prior Situation: No information	Subsequent Situation: Information & Switch	Subsequent Situation: No information & Switch	Subsequent Situation: No Switch
Accepts	Same-sex	76.8 %	70.6 %	82.0 %	70.0 %	70.4 %
	Mixed	78.8 %	74.2 %	69.2 %	64.0 %	70.8 %
Offers	Same-sex	31.2 %	34.8 %	46.4 %	31.2 %	34.8 %
	Mixed	53.0 %	36.5 %	32.7 %	37.6 %	36.8 %
Joint Offer-Accept	Same-sex	26.8 %	24.8 %	44.4 %	22.4 %	22.0 %
	Mixed	42.0 %	25.8 %	.2 %	22.4 %	30.0 %
Accepts following an Offer	Same-sex	28.4 %	24.0 %	41.9 %	23.5 %	22.9 %
	Mixed	43.1 %	25.8 %	22.9 %	20.6 %	29.4 %
Offers following an Accept	Same-sex	26.0 %	23.3 %	40.6 %	23.2 %	22.7 %
	Mixed	39.7 %	27.6 %	21.1 %	20.4 %	30.8 %
Accepts following an Offer-Accept	Same-sex	24.7 %	16.5 %	38.3 %	15.7 %	16.4 %
	Mixed	32.6 %	18.0 %	16.5 %	12.3 %	21.7 %
Offers following an Offer-Accept	Same-sex	21.1 %	12.4 %	32.7 %	9.2 %	14.2 %
	Mixed	29.1 %	11.8 %	7.5 %	9.5 %	17.2 %

Table II.2 (b) Sex Differences in Average Proportions of Choices: Donor's Sex

Choice measure	Donor's Sex	Prior Situation		Subsequent Situation		
		Information	No information	Information & Switch	No information & Switch	No Switch
Accepts	Male	76.8 %	72.0 %	77.2 %	59.2 %	77.6 %
	Female	78.8 %	72.8 %	74.0 %	74.8 %	63.6 %
Offers	Male	42,2 %	39.3 %	43.9 %	37.2 %	49.2 %
	Female	42.0 %	32.0 %	35.2 %	31.6 %	22.4 %
Joint Offer-Accept	Male	34.8 %	22.6 %	38.8 %	20.8 %	40.8 %
	Female	34.0 %	28.0 %	24.8 %	24.0 %	11.2 %
Accepts following an Offer	Male	35.0 %	30.2 %	35.9 %	23.6 %	42.1 %
	Female	36.5 %	19.6 %	28.9 %	20.5 %	10.2 %
Offers following an Accept	Male	33.7 %	26.9 %	37.6 %	21.0 %	41.7 %
	Female	32.0 %	24.0 %	24.1 %	22.6 %	11.8 %
Accepts following an Offer-Accept	Male	26.3 %	21.1 %	35.6 %	11.0 %	33.4 %
	Female	31.0 %	13.4 %	19.2 %	17.0 %	4.7 %
Offers following an Offer-Accept	Male	25.0 %	15.5 %	25.9 %	6.8 %	28.0 %
	Female	25.2 %	8.7 %	14.3 %	11.9 %	3.4 %

presented to the subjects.

Insert Table II.2 (c) about here

The average proportions of the various choice-measures for each sex composition are shown in Table II.2 (d).

Insert Table II.2 (d) about here

Trial Blocks

The proportions of all choice-measures within each block of five trials in the prior and subsequent situation were analyzed in order to see if there were any systematic changes over time. The results showed that variations from one trial block to the next were only slight and similar between the experimental conditions. In the case of Accepts following an Offer, a significant triple interaction was obtained between Trial blocks, Information/Switch and Sex composition in the subsequent situation, indicating that the proportion of this choice-measure varied as a function of all three variables in the experiment.

Correlations

Product-moment correlations were computed between the proportions of simple Offers in the prior and subsequent situations, between the proportion of simple Accepts in the two situations, between Offers in the prior situation and Accepts in the subsequent situation, and

Table II.2 (c) Sex Differences in Average Proportions of Choices: Recipient's Sex

Choice measure	Recipient's Sex	Prior Situation		Subsequent Situation		
		Information	No Information	Information & Switch	No information & Switch	No Switch
Accepts	Male	70.8 %	74.6 %	71.2 %	67.2 %	74.8 %
	Female	84.8 %	70.2 %	80.0 %	66.8 %	66.4 %
Offers	Male	41.2 %	30.8 %	37.6 %	32.4 %	32.4 %
	Female	43.0 %	40.5 %	41.5 %	36.4 %	39.2 %
Joint Offer-Accept	Male	32.0 %	28.4 %	30.8 %	20.0 %	26.0 %
	Female	36.8 %	22.2 %	32.8 %	24.8 %	26.0 %
Accepts following an Offer	Male	36.3 %	23.4 %	31.6 %	21.4 %	25.7 %
	Female	35.2 %	26.4 %	33.2 %	22.7 %	26.6 %
Offers following an Accept	Male	32.4 %	23.9 %	27.9 %	19.8 %	27.1 %
	Female	33.3 %	27.0 %	33.8 %	23.8 %	26.4 %
Accepts following an Offer-Accept	Male	29.7 %	16.1 %	23.9 %	11.1 %	17.7 %
	Female	27.6 %	18.4 %	30.9 %	16.9 %	20.4 %
Offers following an Offer-Accept	Male	24.5 %	10.1 %	20.2 %	9.9 %	13.4 %
	Female	25.7 %	14.1 %	20.0 %	8.8 %	18.0 %

Table II.2 (d) Sex Differences in Average Proportions of Choices

Choice measure	Composition	Prior Situation: Information	Prior Situation: No information	Subsequent Situation: Information & Switch	Subsequent Situation: No information & Switch	Subsequent Situation: No Switch
Accepts	$M_d - M_r$	68.8 %	72.4 %	79.2 %	62.4 %	81.6 %
	$F_d - F_r$	84.8 %	68.8 %	84.8 %	77.6 %	59.2 %
	$M_d - F_r$	80.0 %	71.6 %	75.2 %	56.0 %	73.6 %
	$F_d - M_r$	72.8 %	76.8 %	63.2 %	72.0 %	68.0 %
Offers	$M_d - M_r$	30.4 %	33.6 %	48.8 %	32.0 %	44.8 %
	$F_d - F_r$	32.0 %	36.0 %	44.0 %	30.4 %	24.8 %
	$M_d - F_r$	54.0 %	45.6 %	39.0 %	42.4 %	53.6 %
	$F_d - M_r$	52.8 %	28.4 %	26.4 %	32.8 %	20.0 %
Joint Offer-Accepts	$M_d - M_r$	24.8 %	25.2 %	50.4 %	18.4 %	36.8 %
	$F_d - F_r$	28.8 %	24.4 %	38.4 %	26.4 %	7.2 %
	$M_d - F_r$	44.8 %	20.0 %	27.2 %	23.2 %	44.8 %
	$F_d - M_r$	39.2 %	31.6 %	11.2 %	21.6 %	15.2 %
Accepts following an Offer	$M_d - M_r$	28.2 %	27.8 %	44.6 %	24.4 %	38.4 %
	$F_d - F_r$	28.6 %	20.2 %	39.2 %	22.6 %	7.4 %
	$M_d - F_r$	41.8 %	32.6 %	27.2 %	22.8 %	45.8 %
	$F_d - M_r$	44.4 %	19.0 %	18.6 %	18.4 %	13.0 %

continued.....

Table II.2 (d) continued.....

Choice measure	Sex Composition	Prior Situation: Information	Prior Situation: No information	Subsequent Situation: Information & Switch	Subsequent Situation: No information & Switch	Subsequent Situation: No Switch
Offers following an Accept	$M_d - M_r$	26.4 %	23.2 %	44.4 %	20.4 %	38.0 %
	$F_d - F_r$	25.6 %	23.4 %	36.8 %	26.0 %	7.4 %
	$M_d - F_r$	41.0 %	30.6 %	30.8 %	21.6 %	45.4 %
	$F_d - M_r$	38.4 %	24.6 %	11.4 %	19.2 %	16.2 %
Accepts following an Offer-Accept	$M_d - M_r$	23.4 %	19.2 %	43.0 %	9.8 %	29.4 %
	$F_d - F_r$	26.0 %	13.8 %	33.6 %	21.8 %	3.4 %
	$M_d - F_r$	29.2 %	23.0 %	28.2 %	12.2 %	37.4 %
	$F_d - M_r$	36.0 %	13.0 %	4.8 %	12.4 %	6.0 %
Offers following an Offer-Accept	$M_d - M_r$	20.4 %	13.8 %	38.6 %	7.2 %	24.2 %
	$F_d - F_r$	21.8 %	11.0 %	26.8 %	11.2 %	4.2 %
	$M_d - F_r$	29.6 %	17.2 %	13.2 %	6.4 %	31.8 %
	$F_d - M_r$	28.6 %	6.4 %	1.8 %	12.6 %	2.6 %

between Accepts in the prior situation and Offers in the subsequent situation. These correlation coefficients are presented in Table II.3(a).

Insert Table II.3(a) about here

It can be seen that Offers between the prior and subsequent situation were positively and significantly correlated in both the Switch and No switch groups. Thus, in the case of subjects who changed roles with or without prior information, donors who made a large number of Offers in the prior situation also received a large number of Offers in the subsequent situation. Donors who made a small number of Offers in the prior situation received a small number of Offers subsequently. In other words, there was reciprocity in the case of donors' choices between the prior and subsequent situation. In the case of the No Switch group, the positive and significant correlation between 1st half and 2nd half Offers suggests that donors in the prior situation who had made a large proportion of Offers continued to do so in the subsequent situation, while whose who had made a small proportion of Offers also made a similar proportion of Offers in the subsequent situation.

The correlation in the case of Accepts in the 1st and 2nd half did not show such a pattern in the Switch groups, but was significant only in the No Switch group.

Further correlations were determined between the proportions of other choice measures in the two halves of the experiment. As Table II.3 (b) clearly shows, reciprocity was obtained in the case of all of these measures. The correlation coefficients were significant and positive.

Table II.3 (a) Correlations between 1st Half and 2nd Half Proportions: Offers and Accepts

		Switch group (n=40)		No Switch group (n=20)	
		1st Half			
		Offers	Accepts	Offers	Accepts
2nd Half	Offers	.425**	-.108	.861**	-.158
	Accepts	.217	.105	.112	.464*

* $p < .05$ ** $p < .01$

Table II.3 (b) Correlations between 1st and 2nd Half Proportions: Other measures

	Switch group n=40	No Switch group n=20
Joint Offer-Accepts	.435**	.826**
Accepts following an Offer	.436**	.837**
Offers following an Accept	.483**	.871**
Accepts following an Offer-Accept	.445**	.789**
Offers following an Offer-Accept	.559**	.933**

** $p < .01$

Insert Table II.3(b) about here

The responses to questionnaire items were very similar between the different experimental conditions. Ratings on items related to liking averaged around the netural point. In general, recipients were slightly more likely to perceive lack of generosity rather than generosity on the donor's part. When the donor was seen as being generous, the most commonly stated reason was either that the donor did not care about getting points for himself/herself, or that he/she expected a return. Conversely, the most commonly stated reason for lack of generosity was either that the donor was eager to get points, or that he/she feared that the recipient would not return the favour.

Discussion

Three major features of the results of this experiment deserve discussion: with respect to the Information and Opportunity variables, almost all of the expected effects were found, there was reciprocity in the case of most of the dependent choice-measures, and there were very interesting patterns in the effect of sex composition.

When the Information factor was considered, it was found consistently that those subjects who were told about a later opportunity for repaying a favour accepted more help than those who were not told about such an opportunity, corroborating the findings by Greenberg and Shapiro (1971) and other investigators cited earlier. The explanation

for this observation is that

> ".....a potential recipient may hesitate to accept help, especially when he sees little likelihood of his being able to reciprocate in the immediate future."
>
> (Greenberg and Shapiro, 1971, p. 291)

Furthermore, the recipient's acceptance or lack of it is mediated by a feeling of indebtedness (Greenberg, 1968, 1978). The findings on the Opportunity variable testify to this fact. When a later opportunity for reciprocation actually arose (by way of a switch from the recipient role to the donor role), former recipients who knew about it made more Offers and related choices than those who did not know about it.

In the case of donors, the expectation that the favour would be returned did lead to greater generosity among donors who knew about a forthcoming opportunity for reciprocation than among those who were not told about such an opportunity. This may be due to the anticipated operation of the reciprocity norm (Gouldner, 1960) on the donors' part, because of which they considered it equitable (Homans, 1961; Adams,1965; Walster, Berscheid and Walster, 1973) to accept more Offers in the subsequent situation when they knew about the opportunity for return of the favour than when they did not know about this opportunity.

The above findings related to the effects of the Information and Opportunity variables can be interpreted also in the light of the effect of an anticipation of continued interaction with the same person, as suggested earlier, and as indicated in some experiments (e.g. Marlowe, Gergen and Doob, 1966; Slushing, Roering and Rose, 1974; Gary Shapiro,

1975; Grumbkow et al., 1976).

Comparing the Opportunity and No Opportunity condition (i.e. the Switch and No Switch conditions), the proportion of choices was not consistently lower in the former than in the latter condition. This is discrepant from the finding by Gahagan and Tedeschi (1969) that a change of power-roles, with or without prior information, resulted in a lower proportion of cooperative choices relative to a complete absence of role-reversal. The nature of the present setting (i.e. the use of an Altruism matrix rather than a power matrix) might account for the difference observed. A role reversal in the present setting represented, for the donor, a change from a powerful but less remunerative position to a less powerful but more remunerative position, and the opposite for the recipient. It should be mentioned, however, that subjects were not impervious to the switch of roles: overall, they made both fewer Accept-related choices and Offer-related choices after the switch than before.

The occurrence of reciprocity was shown quite clearly in the correlations between the proportions of most choice-measures in the prior situation with the proportions of these choices in the subsequent situation. This was true regardless of whether donors and recipients knew or did not know about a later opportunity for returning a favour given or received. Thus donors who made a large proportion of Offers and related choices in the prior situation also received a large proportion of Offers and related choices in the subsequent situation, while donors who made a small proportion of Offers and Offer-related choices

in the prior situation received a small proportion of the same choices in the subsequent situation. In the case of recipients, this was true for Accept-related choices, with the exception of simple Accepts. In summary, in the present setting, there was good indication that the reciprocity norm was described by Gouldner (1960) was in operation.

The pattern of sex differences obtained in this experiment needs some elaboration. There is evidence that females tend to be offered help more frequently than males (e.g. Simon, 1971; Pomazal and Clore, 1973; Bickman, 1974; McGovern, Ditzian and Taylor, 1975; Latané and Dabbs, 1975), and that females more than males are likely to help dependent others (Schopler and Bateson, 1965; Gruder and Cook, 1971). Johnson (1976) notes that women are less likely than men to use the power to withdraw rewards. Some studies also show more helping with an opposite-sex other than with a same-sex other (e.g. Pomazal and Clore, 1973; McGovern, Ditzian and Taylor, 1975, etc.). Using a game setting, Wiley (1973) found indications of greater cooperation among mixed pairs than among same-sex pairs. In the present study, more Offer-related and Accept-related choices were made among mixed dyads than in same-sex dyads in the prior situation, which is in agreement with Wiley's finding. But in the subsequent situation, this direction was reversed when donor-recipient roles were switched.

When the donor's sex was considered, unlike some of the findings cited above, female donors in general tended to be less generous than male donors, in the prior situation. But after a change of roles in the subsequent situation, female donors who did not anticipate the

the switch made more Offer-related choices than male donors in the same experimental condition. While this lower level of generosity among female donors is inconsistent with findings from some studies using a conventional helping situation, it is in agreement with those from a number of choice-setting studies (e.g. Bixenstine and Wilson,1963; Bixestine, Potash and Wilson, 1963; Bixenstine, Chambers and Wilson, 1964; Rapoport and Chammah, 1965; Carment, 1974) which show less cooperation (that is, allowing the other person to benefit) among females than among males.

Regarding the recipient's sex, with the exception of a few choice-measures, female recipients were in general given more Offer-related choices, and they made more Accept-related choices,than male recipients. There is no direct evidence on sex differences pertaining to the acceptance of help with which the present results can be compared. Nevertheless, this finding can be reconciled with observations of greater dependency among females than among males (Mischel, 1966; Gruder and Cook, 1971; Whiting and Edwards, 1973) which has often been attributed to socialization effects(Maccoby, 1966; Deaux, 1976).

In short, despite the fact that the effect of sex composition in this study varied as a function of the Information and Switch factors, and also with the particular measure under consideration, a breakdown of the obtained sex differences revealed that they were not completely at variance with other empirical evidence.

Questionnaire responses in this experiment did not vary as a

function of experimental treatment or between males and females.[1]

An examination of the results of this experiment suggested two possibilities that might lead to stronger effects of the variables that were investigated here:

1) Choices in this experiment were made simultaneously by the donor and recipient, implying that on any trial, the recipient chose without knowing exactly about the donor's choice on that trial. Some inference could perhaps be drawn by the participants on the basis of preceding choices, but such an inference might not be precise. Exact information about the donor's choice would be possible if choices were made successively instead of simultaneously, the recipient making a choice only after knowing the donor's choice, on every trial. Moreover, this kind of choice is more closely parallel to a typical helping situation in which help-giving and -receiving are sequential rather than simultaneous events. The absence of this sequentiality might have been one factor affecting both the donor's and recipient's choices as a whole.

2) The level of Offers in this experiment was relatively low in both the Information and No information conditions ($\bar{X}$ = 39.1%). It is very likely that this low level of Offers reduced the possibility of the recipient perceiving the donor's generosity or helpfulness. The most obvious remedy for this situation would be to artificially present a higher level of Offers by using a confederate.

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1 This happened to be true in the case of all subsequent experiments as well. Therefore, questionnaire measures may hereafter be mentioned in passing, but will not be discussed in detail in any study.

In view of these two possibilities affecting choices in this experiment, before moving on to the next factor of interest, it was decided to test the first possibility mentioned above. The following experiment therefore was a replication of Experiment II, except that choices were made successively rather than simultaneously, thus permitting the recipient to make his/her choices being fully aware of the exact choice made by the donor on each trial.

EXPERIMENT III

The Effect of Information/ No information about, and Presentation of an Opportunity/ No opportunity to Reciprocate, on the Recipient's Reactions

(Successive Choices)

The procedure in this experiment differed from Experiment II only in two respects:

1) Subjects were instructed[1] that choices would be made successively. They were also informed that who would make the first choice on each trial would be decided randomly, but in fact, the donor always made the first choice, which was indicated to the recipient, who then made his choice.

2) The Sex composition variable included only same-sex dyads, in order to simplify the experimental design.

The paradigm, expected outcomes, and method were the same here as in the previous experiment.

---

1 Appendix VI

Results

All choice measures were analyzed as in Experiment II, except that of joint Offer-Accept choices. Since the recipient chose after the donor, it was more meaningful to compute the proportion of Accepts, given that an Offer had been made on the same trial. While representing essentially the same choice (i.e. the intersection of an Offer and an Accept choice), this measure was calculated as a conditional probability (P (Accept | Offer)). Analyses of variance in these choice measures showed the effect of the Information variable to be significant in the prior situation, while the other effects failed to reach statistical significance. However, as in the case of the preceding experiment, a number of consistent trends occurred, many of which were departures from the findings of Experiment II. These results will now be described.

Information/ No information (Prior situation)

Recipients made significantly more Accept choices in the Information condition than in the No information condition. This trend was found also in the case of other Accept-related choices (with the exception of Accepts, given an Offer), and was in accordance with the expected effect of the Information variable. In the case of Offers and related choices, however, the mean proportion was in general higher in the No information condition than in the Information condition, a direction opposite to that expected. The average proportions of various choices have been detailed in Table III.1.

Insert Table III.1 about here

Table III.1 Average Proportions of Choices in the Information/Switch Conditions

Choice measure	Prior Situation		Subsequent Situation		
	Information	No information	Information & Switch	No information & Switch	No Switch
Accepts	75.2 %	62.2 %	58.0 %	52.8 %	57.6 %
Offers	32.4 %	32.7 %	38.0 %	52.0 %	22.8 %
Accepts, given an Offer	60.1 %	60.4 %	30.1 %	48.5 %	50.0 %
Accepts following an Offer	49.8 %	41.9 %	25.8 %	53.7 %	31.1 %
Offers following an Accept	28.8 %	29.8 %	37.5 %	47.9 %	20.8 %
Accepts following an Offer-Accept	43.8 %	38.4 %	20.9 %	39.4 %	29.1 %
Offers following an Offer-Accept	20.3 %	20.4 %	42.0 %	38.1 %	9.8 %

Switch/ No Switch (Subsequent situation)

As can be seen from the table above, the proportions of most of the choice measures were higher in the Switch condition than in the No Switch condition, with the exception of Accepts and Accepts, given an Offer, the proportions of which were higher in the No Switch condition. This result was different from the predicted direction. When the two Switch groups were compared between themselves, the proportion of most choices was found to be higher in the No information and Switch condition than in the Information and Switch condition. This is parallel to the Information effect found in the case of Offer-related choices in the prior situation, but is opposite to the predicted difference between the two Switch conditions.

Another result that differed from the corresponding one in the preceding experiment was that while the proportion of Accepts and related choices decreased after a switch of roles, the proportion of Offers and related choices increased after the switch.

Sex composition

Differences between male and female dyads in this experiment followed varying patterns depending on the Information condition, and whether the measure under consideration was an Offer-related choice or an Accept-related choice.

In the prior situation, more Offers and Accepts were made in female dyads than in male dyads under Information. This was true for Accepts under No information, but for Offers, the proportion was higher among male dyads than among female dyads in the same condition.

The proportion of other Offer-related choices was higher females than among males in both the Information and No information conditions. The proportion of other Accept-related choices was higher among males than among females in the Information condition, but this direction was reversed in the No information condition.

In the subsequent situation, consistent patterns were observed barring a few measures. In general, the proportion of Accept-related and Offer-related choices was higher among females than among males in the Information and Switch condition, and this was true also for Accept-related choices in the No information and Switch condition. But the proportion of Offer-related choices was higher among males than among females in the latter condition. Table III.2 provides these mean proportions.

Insert Table III.2 about here

In short, the difference between the Information and No information condition in the prior situation was maintained in the Information and Switch condition and No information and Switch condition in the subsequent situation, when the effect of sex composition was considered.

Correlations

Correlations were computed between proportions of the various choices in the prior and subsequent situations, and are shown in Table III.3(a-b).

Insert Table III.3(a-b) about here

Table III.2 Sex Differences in Average Proportions of Choices

Choice measure	Sex Composition	Prior Situation		Subsequent Situation		
		Information	No information	Information & Switch	No information & Switch	No Switch
Accepts	$M_d - M_r$	74.4 %	61.6 %	71.2 %	51.2 %	62.4 %
	$F_d - F_r$	76.0 %	62.8 %	44.8 %	54.4 %	52.8 %
Offers	$M_d - M_r$	28.8 %	33.2 %	28.0 %	52.8 %	22.4 %
	$F_d - F_r$	36.0 %	32.2 %	48.0 %	51.2 %	23.2 %
Accepts, given an Offer	$M_d - M_r$	61.4 %	51.8 %	27.8 %	53.2 %	48.0 %
	$F_d - F_r$	58.8 %	69.0 %	32.2 %	43.8 %	52.0 %
Accepts following an Offer	$M_d - M_r$	55.0 %	35.0 %	18.4 %	45.8 %	26.2 %
	$F_d - F_r$	44.6 %	48.8 %	33.2 %	61.6 %	36.0 %
Offers following an Accept	$M_d - M_r$	23.8 %	30.6 %	23.0 %	48.2 %	26.0 %
	$F_d - F_r$	33.8 %	29.0 %	52.0 %	47.6 %	15.6 %
Accepts following an Offer-Accept	$M_d - M_r$	47.6 %	30.0 %	17.2 %	37.8 %	26.2 %
	$F_d - F_r$	40.0 %	46.8 %	24.6 %	41.0 %	32.0 %
Offers following an Offer-Accept	$M_d - M_r$	13.4 %	19.2 %	19.4 %	48.2 %	10.0 %
	$F_d - F_r$	27.2 %	21.6 %	64.6 %	28.0 %	9.6 %

Table III.3 (a) Correlations between 1st half and 2nd half Proportions : Offers and Accepts

		Switch group (n=20)		No Switch group (n=10)	
		1st Half			
		Offers	Accepts	Offers	Accepts
2nd Half	Offers	.389	-.136	.118	.552
	Accepts	.375	-.252	.639*	.565

* $p < .05$

Table III.3 (b) Correlations between 1st half and 2nd half Proportions : Other measures

	Switch group (n=20)	No Switch group (n=10)
Accepts, given an Offer	.175	.856 **
Accepts following an Offer	.199	.707 *
Offers following an Accept	.186	.307
Accepts following an Offer-Accept	-.071	.737 **
Offers following an Offer-Accept	.156	.045

* $p < .05$

** $p < .01$

It can be seen from this table that the correlations obtained in this experiment were quite in contrast to those obtained in Experiment II. Unlike the very consistent indications of reciprocity in the case of simultaneous choices, the correlations in the case of successive choices were small in magnitude and statistically non-significant, and cannot be said to indicate the occurrence of reciprocity in the choices between the 1st and 2nd half of the experiment. One point of similarity between the correlations obtained in the previous experiment and the present one was that the significant correlations were all in the No Switch group, and were found in the case of three Accept-related choices (Accepts, given an Offer, Accepts following an Offer, and Accepts following an Offer-Accept outcome).

Discussion

The first statement that can be made on the basis of the results just described is that the substitution of succesive choices for simultaneous choices in this setting unquestionably introduced a number of changes in the subjects' choices. Most of the recipients' Accept-related choices in the prior situation were in higher proportion under Information than under No information, thus supporting at first glance Greenberg's (1968,1978) theory of indebtedness. However, the proportions of Accept-related choices in the subsequent situation after a switch of roles were not found to be in the direction that would be expected had indebtedness truly been the mediator of acceptance of help in the prior situation.

The donors' choices in the prior and subsequent situation also do not bear out the expected reciprocation of the favour and equity. Contrary to what was expected on the basis of the results of Experiment II, the proportion of most Offer-related choices was greater in the No information condition than in the Information condition, and this direction was maintained in the subsequent situation, after a switch of roles. It is possible that this was due to psychological reactance, (Brehm, 1966; Wicklund, 1974) discussed in previous contexts in the present research. Information about a later opportunity for his generosity to be repaid might make a donor feel compelled to be generous, arousing reactance and thus leading to fewer Offer-related choices, than under No information where there is no occasion for the arousal of such a state of affairs. One is reminded of Wicklund's (1974) remark about the donor in this kind of circumstance:

> " If there are pressures toward benevolence, reactance will lead him to refuse favors, and if there are pressures away from giving, reactance will turn him into a giver. "
>
> (Wicklund, 1974, p.35)

Evidence from other studies (e.g. Brehm and Cole, 1966; Goodstadt, 1971; Worchel, Andreoli and Archer, 1976) showing reactance effects inhibiting helping makes the interpretation in the present context more credible. Why such an effect appeared under successive choices but not under simultaneous choices can best be explained thus: in the successive choice situation, the donor's freedom might have been threatened even more by the fact that the recipient was to know exactly what the donor had chosen. Such exact 'communication' did not take place in the

simultaneous-choice situation.

Another result that needs some explanation is the decrease of Accept-related choices, and the increase of Offer-related choices from the prior to subsequent situation. Possibly this was because the former recipients were reciprocating for their prior level of Accepts, and the former donors were likewise making Accepts commensurate with their prior Offers, in keeping with the equity norm.

The effects of sex composition obtained here are noteworthy not only because they are generally discrepant with findings from other choice-setting studies, but also because they represent a point of difference between the two experiments described in this chapter. The trend of male-female differences in this experiment is the opposite of that observed in Experiment II. In the prior situation, female donors made more Offer-related choices than males, whether or not they anticipated a future opportunity for their favour to be returned. Accordingly, in the subsequent situation, when the opportunity actually arose, females now in the recipient role for the most part made more Accept-related choices than males in both the Information and Switch, and No information and Switch conditions. With regard to Accept-related choices in the prior situation, male recipients made more Accept-related choices than female recipients when they expected a later opportunity to return the favour, but fewer Accept-related choices than females when they did not anticipate an opportunity to return the favour. These findings do not coincide with evidence showing greater competitiveness among females in choice-settings. One interpretation is that the more direct communi-

cation about the donor's choices motivated the females to appear good by being generous. For males, the same situation might have meant trying to appear sensible by optimizing gains(making fewer Offers in the donor role and more Accepts in the recipient role). However, this does not explain clearly why, in the subsequent situation, females who changed with prior information made more Offer- and Accept-related choices than males, but those who changed without prior information made fewer Offer-related choices than males.

SUMMARY AND CONCLUSIONS

This chapter reported two experiments dealing with the same variables in a choice setting (the Altruism matrix) to study the recipient's reactions to helpful or generous choices. In the first experiment, choices were made simultaneously while in the second, this was changed to successive choices. Findings from both studies led to the following tentative replies to the questions raised at the start of these experiments. The recipient's reactions to help generally conform to Greenberg's (1968) theory of indebtedness, while the donor's choices are in accordance with equity considerations (Homans, 1961; Adams,1965) after an expectation of the operation of the reciprocity norm (Gouldner, 1960).

Reciprocity occurred in both experiments, but to different degrees and in different ways under simultaneous-choice and under successive-choice. Under simultaneous choice, reciprocity appeared unambiguously in the form of significant and positive correlations between 1st half-

proportions of Accept-related choices, Offers and Offer-related choices, and the 2nd half-proportions of the same choice-measures. When choosing simultaneously, a former recipient who changed into the donor role reciprocated by making Offer-related choices commensurate with the former donor's Offer-related choices. But when choosing succesively, a former recipient who changed into the donor role reciprocated by making Offer-related choices according to his own previous Accept-related choices.

Sex differences varied between the two experiments, which was explained by saying that a more direct communication through successive choices rather than simultaneous ones made both males and females more aware of different aspects of the setting, namely, making optimal choices to appear sensible (in the case of males), and being generous and self-denying to appear good (in the case of females).

The successive-choice procedure was introduced as a possible medium for the unhindered influence of the independent variables in the present setting. Since this procedure is also more similar to typical helping situations, it was retained in the later experiments in this research. After having explored the possibility of incomplete information about the donor's choices affecting the situation as a whole, the next experiment was designed to investigate the second possibility mentioned earlier in this chapter: the effect of a relatively low 'baseline' level of Offers by the donor.

CHAPTER FIVE

THE RECIPIENT'S REACTIONS TO HELP IN A CHOICE SETTING - II

Independent Choices by the Donor

The preceding chapter pointed out the possibility that a low baseline of Offers in an Altruism matrix, perpetuated by interdependent choices by the donor and recipient, might result in a perception of a lack of generosity by the recipient. This, in turn, might obstruct the effects of information about, and presentation of an opportunity for reciprocation. In addition, it is possible that these two variables affect the recipient's choices jointly with other factors, as shown in some experiments (e.g. Morris and Rosen, 1973; Castro, 1974; Clark, Gotay and Mills, 1974). A third consideration is interdependence of choices in the type of setting being used here. The problems inherent in using an interdependent situation, in which pairs of naive subjects are participating, are brought to one's attention by Bavelas (1975), thus:

> " If a pair is interacting freely, then each is setting conditions for the response of the other; the responses of each are stimuli for the other. So, whatever initial state is set by the experimenter as the independent variable, he will fairly quickly lose control of it, as each subject successively changes the stimulus situation for the other.....The typical experimental solution is to remove the double contingency and study the individual in a controlled social context, e.g. with a confederate. "
>
> (Bavelas, 1975, p.213)

Accordingly, in the subsequent experiments in the present research, the donor variables were held constant by using a confederate.

In this chapter, an experiment will be reported in which the successive-choice procedure was retained (because of its close analogy to a typical helping situation), and the amount of help given to the recipient, the Information variable and the Opportunity variable (both factors as operationalized in the previous chapter) were investigated jointly.

EXPERIMENT IV

The Effect of Amount of Help, Information/No information and Presentation of an Opportunity/No opportunity for Reciprocation, on the Recipient's Reactions

Amount or magnitude as a characteristic of help has often been studied but not always with unambiguous results. For example, Wilke and Lanzetta (1970) asked subjects to role-play the heads of two sections of a shipping company, one of whom gave help to the other, varying in magnitude from none to 100%. When recipients later reciprocated, it was found that the help returned was " a monotonic increasing function of amount of prior help." (p.492).

Kahn and Tice (1973) also investigated this factor along with that of the donor's stated intention to help or not to help. Female subjects working on a proof-reading task received a large or small amount of help from a fictitious 'supervisor'. When allowed to repay this favour, subjects returned help in proportion to that received earlier. Stated intention did not have a significant effect on the amount of help repaid.

In Freeman's (1977) study cited earlier, the amount of help offered to the recipient in conjunction with obligation to return the

help, affected the recipient's attraction for the donor. Greatest attraction and preference for the donor as a future work-partner was expressed when the amount of help offered was large and obligation to return it was low.

Using a choice-setting, Pruitt (1968) found evidence of direct reciprocity in the amount of cooperation. The greater the proportion of cooperative choices made by one player, the greater was the proportion of cooperative choices made subsequently by the other person. In addition, larger rewards were reciprocated to a former cooperator who had started with a smaller amount of resources than to one who had started with a larger amount of resources. But this effect occurred only when it was expected that the other person would also have a large amount of resources in the future. These findings resemble those reported by Fisher and Nadler (1974, 1976), Gergen, Ellsworth, Maslach and Seipel (1975) and Nadler, Fisher and Streufert (1976) (Chapter II, p.32).

Several experiments using a choice setting systematically vary the strategy of cooperative choices by a programmed or 'dummy' player to make a pre-determined number of cooperative choices. Such experiments essentially manipulate the magnitude of reward being given to the other player. In one such study, Braver (1975) compared cohesive and non-cohesive dyads, in which a power game was played against a pre-programmed strategy of 0%, 50%, or 100% reward. After reversal of power-roles, it was found that while rewards given did not correlate linearly and positively with the rewards received, the level of rewards given interacted with cohesiveness, larger rewards being returned in cohesive dyads than in

non-cohesive dyads. Also, choices in a subsequent 1-trial Prisoner's Dilemma game correlated positively with choices in the preceding power game.

It should not be taken for granted that all studies varying the magnitude of cooperation report reciprocal cooperation. Oskamp(1971) reviewed a number of experiments involving mixed-motive games in which this factor was manipulated, but not all of them found significant differences as a function of proportion of cooperative choices. Sermat(1964) for instance found no differences in the subjects' cooperative choices as a function of a 'dummy' opponent's strategy of 20%, 40%, 60% or 80% cooperative choices. Similarly, Gahagan and Tedeschi (1969) found no effect of a programmed random strategy of cooperation on the choices of the subject. In yet another study, McKeown, Gahagan and Tedeschi(1967) varied the relative power of the two players, and found that a strategy of 10%, 50% and 90% cooperation while affecting the choices of one who had changed from a strong to weak role, did not influence the choices of one who had switched from a weak to strong role, even though subjects knew about the shift of roles.

In some other choice settings that involve bargaining, a negative relationship has been reported between the amount of help (concessions) given and that received. To cite a few examples, Yukl (1974) found that when the opponent made small concessions,the bargainer made large concessions and vice versa. Druckman and Bonoma (1976) also found that in a study of school boys supposedly participating in a buyer-seller situation, as the sellers' concession rate decreased, the buyers conceded more. But

the opposite was not true: increasing seller concessions did not affect buyers' concession rate. Chertkoff and Conley (1967), however, reported a positive effect of a large amount of help. When one person made more frequent concessions, the other person also conceded more frequently, although not in the same proportion. These findings from bargaining studies are relevant to the present context of helping behaviour because they illustrate the fact that a generous donor may not always be repaid for his good turn. Rather, the recipient may take unfair advantage of his benevolence.

Studies that have examined the effects of information about a later opportunity for returning a favour were reviewed in Chapter IV. It was also pointed out in that context that the Information variable might affect the recipient's reactions to help in conjunction with the amount of help given. Thus, in the two preceding experiments, stronger effects of the Information factor might have been observed if the amount of help offered by the 'natural' donor had been noticeably high. The joint effect of these two variables was investigated in this experiment by holding the donor variables constant. The questions to be answered was:

When the donor offers a small or large amount of help to the recipient, and both are informed/not informed about a later opportunity for reciprocation, would the recipient accept more help in the former or in the latter condition, in the case of both variables? When the opportunity is actually presented, would the former recipient return more help when a large amount was offered, or when a small amount of help was offered? Also, would the former recipient return more help

when he/she knew about the opportunity, or when he/she did not know about the opportunity ?

Design

The design of the present experiment was essentially the same as that of Experiment III, except for the additional variable of amount of help. The independent variables were: Information/ No information about a later opportunity; Opportunity/ No opportunity (manipulated by way of a Switch/ No switch of donor-recipient roles); donor's and recipient's sex (only male donor-male recipient dyads and female donor-female recipient dyads were included); small/ large amount of help; and trials, taken in blocks of five.

Thus this experiment had a 2(Information) x 2(Amount of help) x 2(Sex composition) x 5(Trial blocks) factorial design in the prior situation and a 3(Information/Switch) x 2(Amount of help) x 2(Sex composition) x 5(Trial blocks) in the subsequent situation.

The amount of help requires some elaboration at this point. The whole question of investigating the effect of magnitude of help arose because of the relatively low level of Offers found in the first two experiments using an Altruism matrix. Whether this low level of Offers influences the recipient's reactions can be determined by a) keeping this small magnitude of Offers constant across recipients, and b) comparing it with a noticeably large magnitude of help.

Since choices were to be made succesively, the average proportion of Offers made in Experiment III in the No information condition(approximately 32% Offers) was taken as the Small amount in the present experiment.

The Large amount of help was arbitrarily set at 80% Offers. It was expected that this amount would be large enough to be perceived as a 'generous' offer, and yet not so incredibly large as to arouse suspicion.

The dependent measures in this experiment were identical to those in Experiment III, except that Offer-related measures and other questionnaire measures related to the donor were omitted, since all donor variables were held constant by using a confederate. In the subsequent situation, however, the choices and questionnaire measures to the donor (who was the former recipient) were included.

Expected outcomes

The following effects of the major independent variables were expected to occur:

With respect to the effect of the Information variable in the prior and subsequent situations, the expectations were the same in the preceding two experiments, namely, that the recipient would make more Accept-related choices in the Information than in the No information condition, and subsequently, would make more Offer-related choices in the Information and Switch condition than in the No information and Switch condition.

With respect to the effect of the Amount of help, while a difference was expected between the Small and Large amount conditions, the direction of this difference was not specified. On one hand, a large amount of help might generate more indebtedness than a small amount and hence might be less likely to be accepted. On the other hand, a

large amount of help might lead to a greater liking for the donor and hence be more likely to be accepted than a small amount of help. With regard to the amount of help returned later, the experiments cited earlier indicate mixed results, some showing reciprocity, and others showing a negative relationship between amount received and amount returned, and still others showing no effect of varying the amount of help.

As in the case of previous experiments, no specific predictions were made about sex differences in the effects of these variables.

Subjects: Seventy-two undergraduates (36 males and 36 females) enrolled in the first and second years in McMaster University, served as subjects in this experiment. A male and female undergraduate of the same age served as confederates. Subjects were recruited as in the previous experiments.

Procedure

The basic procedure adopted here was identical to that of Experiment III (Chapter IV, p.80-82,101). Unknown to the subject(S), however, the confederate (C) was always assigned to the Yellow (donor) role, and he/she always made the first choice on every trial. Also, C was instructed to follow a certain pattern of choices[1], making a specified number of Offers in the Small and Large amount conditions, in the prior situation. In the case of both Switch conditions, in the subsequent situation, C was in the recipient role and was instructed to make Accept choices on all trials. In the No Switch condition, C was

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1 Appendix VII

instructed to repeat the pattern of choices made in the prior situation.

Manipulations: The Information and Switch manipulations were carried out in exactly the same way as in Experiments II and III. In the case of the Amount variable, the donor made 32% Offers (8 Offers in 25 trials) in the Small amount condition, and 80% Offers (20 Offers in 25 trials) in the Large amount condition.

The rest of the procedure was the same as in the preceding two experiments.

Results

The dependent choice-measures in this experiment included Accepts, Accepts given an Offer, Accepts following an Offer, and Accepts following an Offer-Accept outcome, in the prior situation, and Offers, Offers following an Accept, and Offers following an Offer-Accept outcome in the subsequent situation in the case of the two Switch groups, along with the corresponding Accept-related choice for the No Switch group. As in the previous two experiments, since the number of subjects in the two Information conditions was unequal (24 Ss in the Information condition and 48 Ss in the No information condition) a multi-factor analysis of variance for unequal n's (unweighted-means) was carried out in the the case of 1st half-measures, while a similar analysis with equal n's was conducted in the case of 2nd half- measures.

The results of these analyses showed that the effects of most of the independent variables were significant, and these, along with other systematic effects, are described below.

Information/ No information (Prior situation)

As expected, the proportion of Accept-related choices in the prior situation was higher in the Information condition than in the No information condition. In the case of Accepts and Accepts following an Offer, this difference was significant. Thus recipients who were aware of a future opportunity for returning the favour accepted more helpful choices than recipients who were unaware of such an opportunity. The average proportions of Accept-related choices under the Information and No information conditions are indicated in Table IV.1(a).

Insert Table IV.1(a) about here

Switch/ No switch (Subsequent situation)

Comparisons in the subsequent situation involved Offer-related choices in the two Switch groups, and Accept-related choices in the No switch group. It was found that the proportion of all Offer-related choices was lower than the proportion of the corresponding Accept-related choice in the No switch condition. It was this difference that accounted for most of the main effect of the Information/Switch factor obtained in the 2nd half. Between the two Switch groups themselves, the proportion of Offer-related choices was consistently higher in the Information and Switch condition, than in the No information and Switch condition. Table IV. 1(b) presents the mean proportions of choices in the 2nd half in the Information/Switch conditions. Consistent with predictions, former recipients who switched with information made more Offer-related choices than did those who switched without information.

Table IV.1(a) Average Proportions of Choices in the Information/No Information Conditions (Prior Situation)

Choice measure	Information	No Information
Accepts	75.2 %	63.5 %
Accepts, given an Offer	84.2 %	74.8 %
Accepts following an Offer	75.4 %	62.2 %
Accepts following an Offer-Accept	67.9 %	56.0 %

Table IV.1 (b) Average Proportions of Choices in the Information/Switch Conditions (Subsequent Situation)

Choice measure	Information & Switch	No information & Switch	No Switch
Offers	46.3 %	42.9 %	68.2 % (Accepts)
Offers following an Accept.	45.8 %	43.1 %	66.1 % (Accepts following an Offer)
Offers following an Offer-Accept	41.2 %	39.0 %	59.3 % (Accepts following an Offer-Accept)

Insert Table IV.1(b) about here

Sex composition

Systematic and in most cases significant effects of sex composition were obtained in this experiment. The proportion of all Accept-related choices in the prior situation, and the proportion of all Offer-related choices in the subsequent situation, was found to be higher in the male dyads than in the female dyads. The main effect of this variable was significant in the case of Accepts, given an Offer, Offers, and Offers following an Offer-Accept outcome, while a marginally significant effect was obtained in the case of Accepts following an Offer, and Offers following an Accept. These findings, as presented by way of mean proportions in Table IV.2, show that male recipients with a male donor made more Accept-related choices than did female recipients with a female donor. Likewise, when former male recipients were subsequently with a male recipient, they made more Offer-related choices than did former female recipients who were subsequently in the donor role with a female recipient.

Insert Table IV.2 about here

Amount of help given

This variable showed a significant effect, without exception, on all choice-measures. It is evident from the average proportions in Table IV.3, that the proportion of both Accept-related choices and Offer-related choices was significantly higher in the Large amount (80% Offers) than in the Small amount (32% Offers) condition.

Table IV.2 Sex Differences in Average Proportions of Choices

Choice measure	Sex Composition	Prior Situation: Information	Prior Situation: No information
Accepts	$M_d - M_r$	79.4 %	66.2 %
	$F_d - F_r$	71.0 %	60.8 %
Accepts, given an Offer	$M_d - M_r$	92.9 %	81.6 %
	$F_d - F_r$	75.5 %	68.0 %
Accepts following an Offer	$M_d - M_r$	75.4 %	65.5 %
	$F_d - F_r$	75.4 %	58.8 %
Accepts following an Offer-Accept	$M_d - M_r$	74.3 %	63.0 %
	$F_d - F_r$	61.5 %	49.0 %

		Subsequent Situation: Information & Switch	No information & Switch	No Switch	
Offers	$M_d - M_r$	48.8 %	52.4 %	78.8 %	(Accepts)
	$F_d - F_r$	43.8 %	33.4 %	57.5 %	
Offers following an Accept	$M_d - M_r$	48.5 %	51.3 %	76.3 %	(Accepts following an Offer)
	$F_d - F_r$	43.0 %	34.9 %	55.9 %	
Offers following an Offer-Accept	$M_d - M_r$	45.3 %	51.1 %	72.6 %	(Accepts following an Offer-Accept
	$F_d - F_r$	37.0 %	26.9 %	46.0 %	

Insert Table IV.3 about here

Another observation was that in the case of Offer-related choices in the subsequent situation, the Amount of help interacted with the Information/Switch factor. When a large amount of help was offered, in the subsequent situation more Offer-related choices were made under Information and Switch than under No information and Switch. But when the amount of help given was small, fewer Offer-related choices were made under Information and Switch than under No information and Switch.

Trial Blocks

In contrast to the previous two experiments using the same matrix, significant effects involving trial blocks were obtained in this experiment. In addition to significant main effects of this factor on Accepts, Accepts,given an Offer, and Accepts following an Offer-Accept outcome, most of the Accept-related choices showed an interaction between Trial blocks and the independent variables. In the case of Accepts, a significant Trial blocks x Amount interaction, and Trial blocks x Information x Sex composition interaction were obtained, which have been presented graphically in Figure IV.1(a-b).

Insert Figure IV.1 (a-b) about here

In the case of Accepts,given an Offer, trial blocks interacted significantly with Amount of help, while the Trial blocks x Sex composition interaction was marginally significant. Variations from one

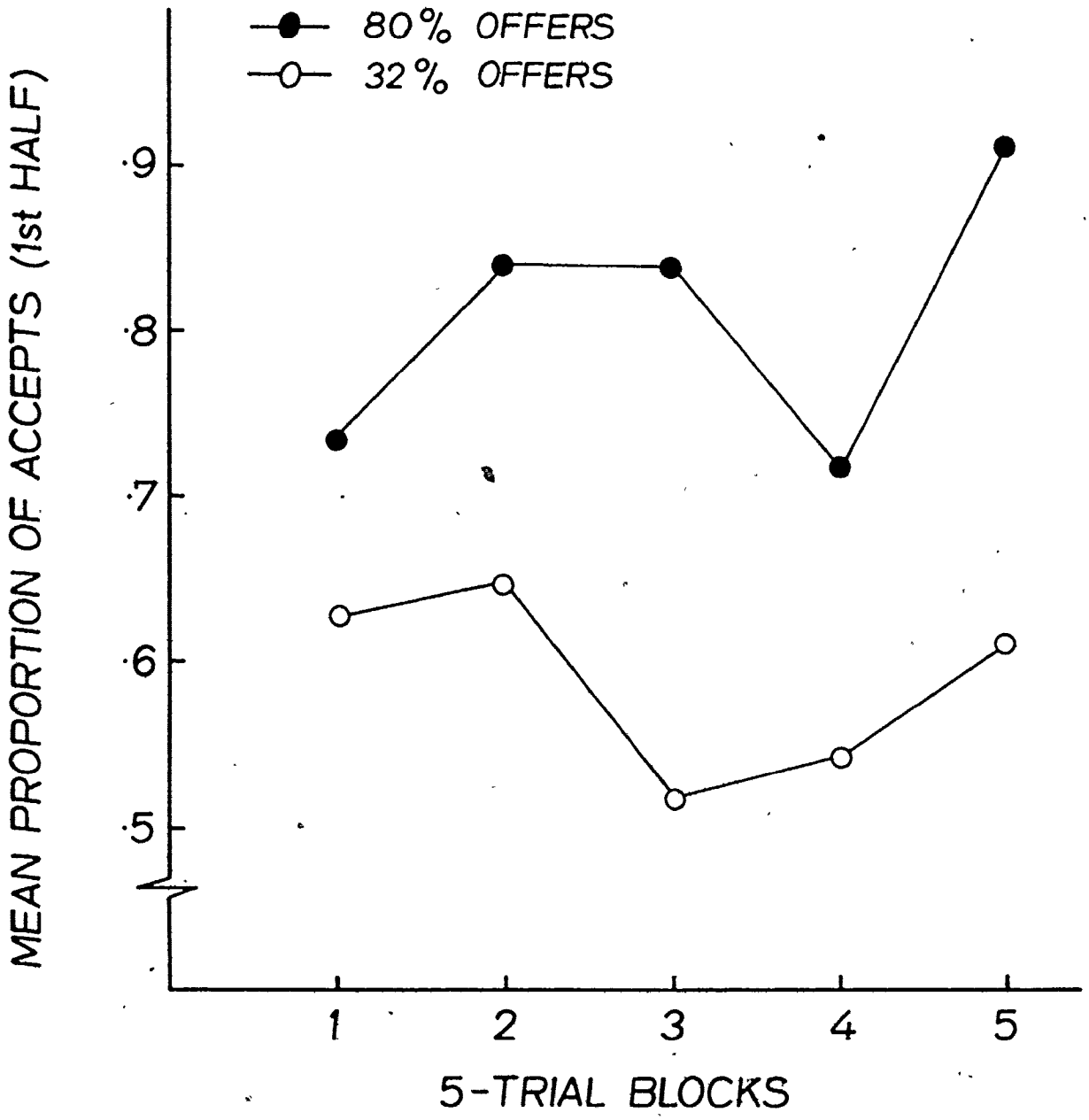

Figure IV.1(a) Trial Blocks x Amount of Help Interaction in the case of Accepts

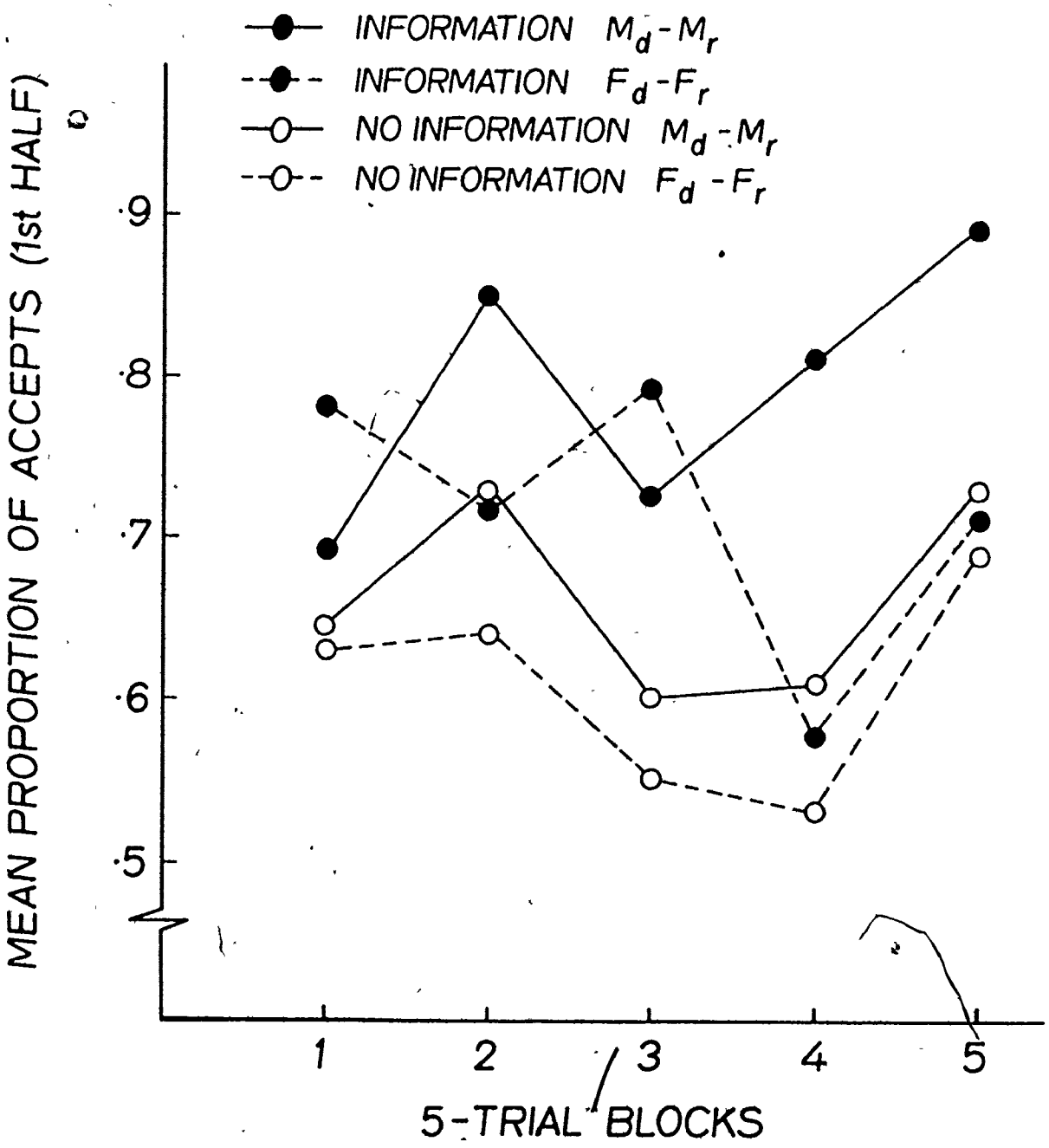

Figure IV.1 (b) Trial Blocks x Information x Sex composition Interaction in the case of Accepts

trial-block to the next are as illustrated in Figure IV.2(a-b).

Insert Figure IV.2(a-b) about here

The proportion of Accepts following an Offer was affected by a significant interaction between Trial blocks and Amount of help, as indicated in Figure IV.3.

Insert Figure IV.3 about here

Finally, Figure IV.4 (a-c) illustrates variations in the proportion of Accepts following an Offer-Accept outcome as a function of the interactive effects of Trial blocks with Information, with Sex composition, and with Amount of help, respectively.

Insert Figure IV.4(a-c) about here

While variations over trials in the case of each choice-measure may be observed in these graphic presentations, one notable observation was that , among the three independent variables studied here, it was in the case of the Amount factor that differences between trial blocks and between experimental conditions were marked in most measures. In the 80% Offers condition, the trend was generally toward an increase in the proportion of Accept-related choices, while in the 32% Offers condition, the proportion tended to be either constant or tended to decline from the first to fifth trial-block.

Another point worthy of mention with regard to trial-blocks effects is that Offer-related measures were not found to be as sensitive to this factor as Accept-related measures.

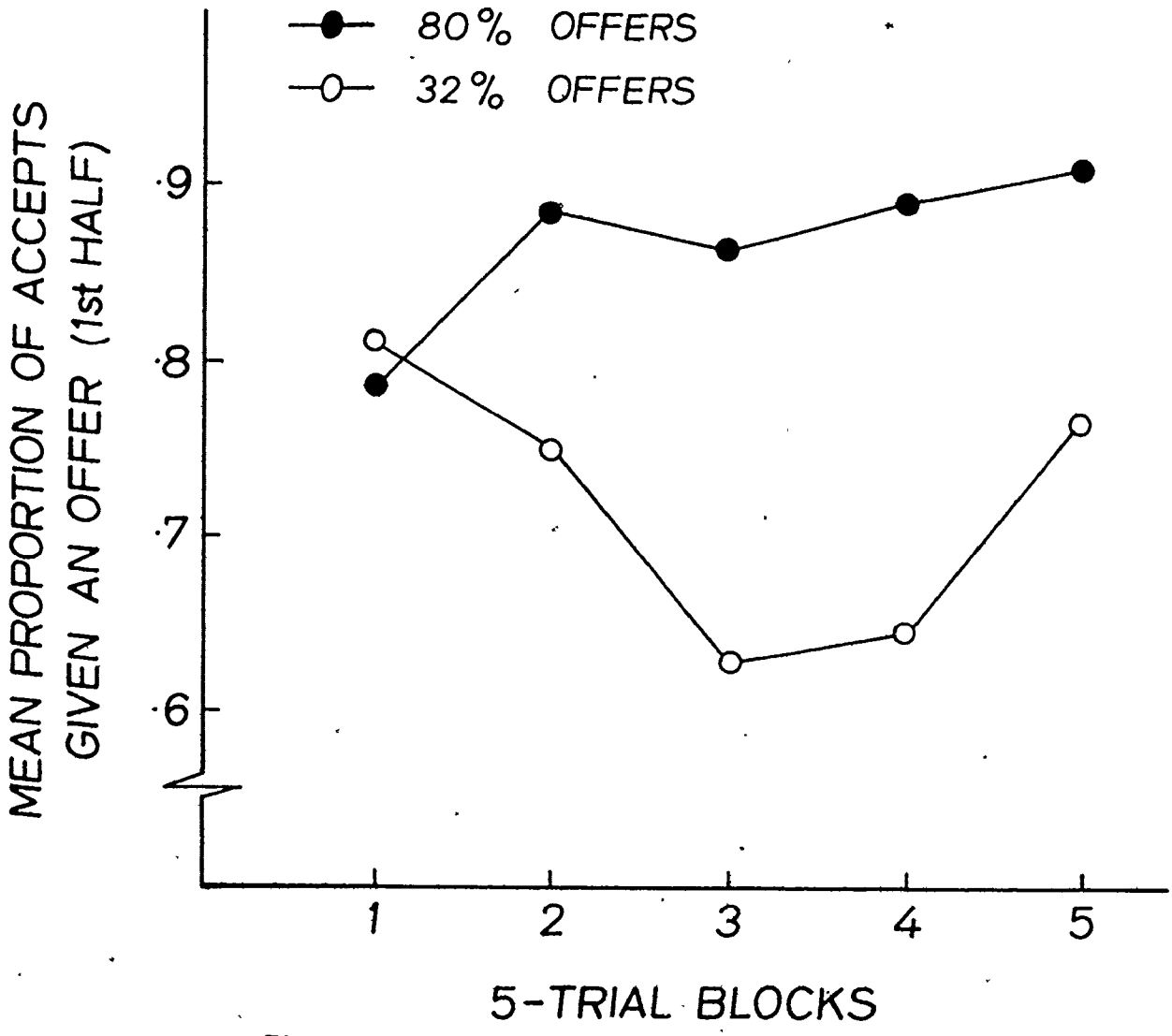

Figure IV.2 (a) Trial Blocks x Amount of Help Interaction in the case of Accepts, given an Offer

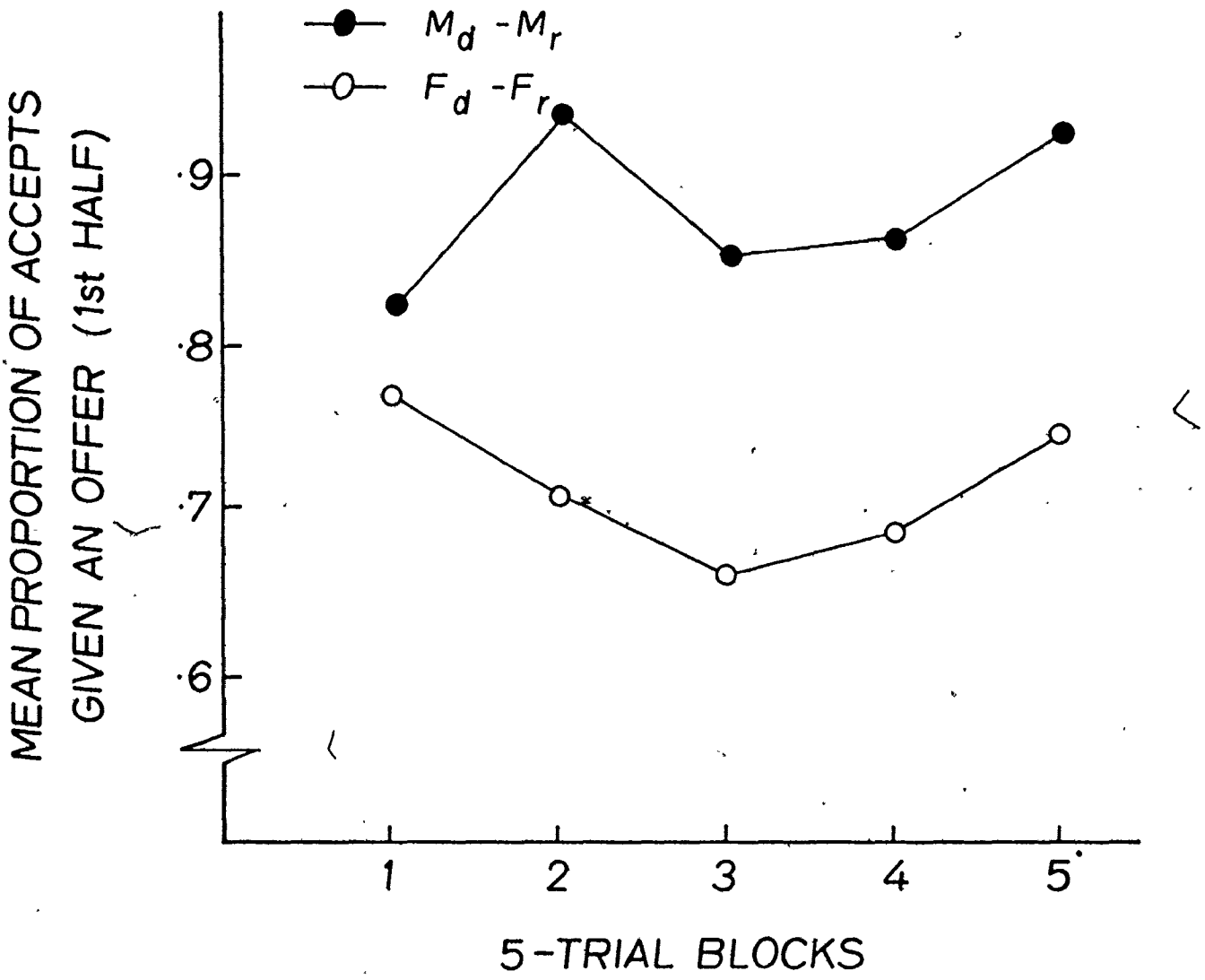

Figure IV.2 (b) Trial Blocks x Sex composition Interaction in the case of Accepts, given an Offer

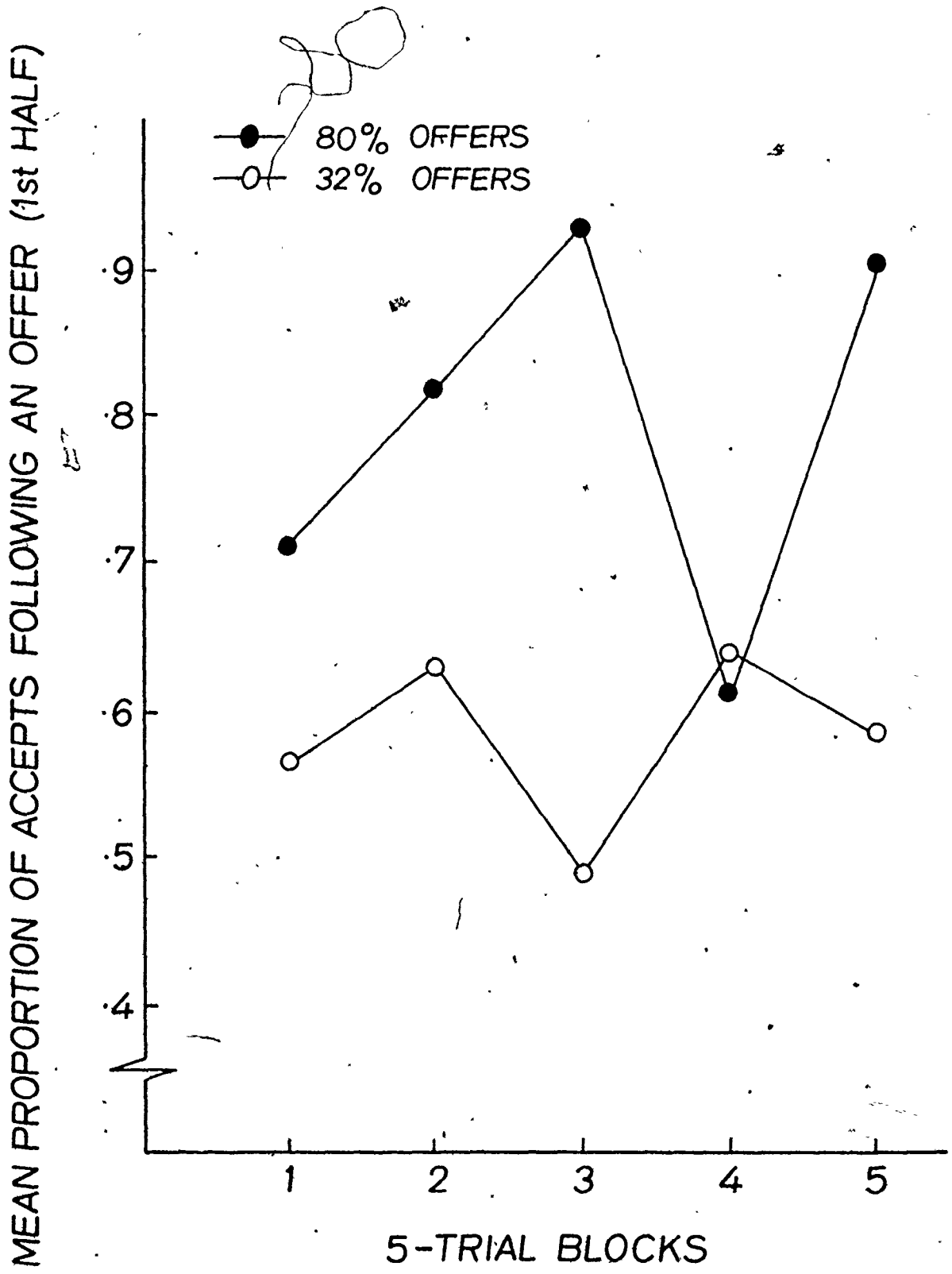

Figure IV.3 Trial Blocks x Amount of Help Interaction in the case of Accepts following an Offer

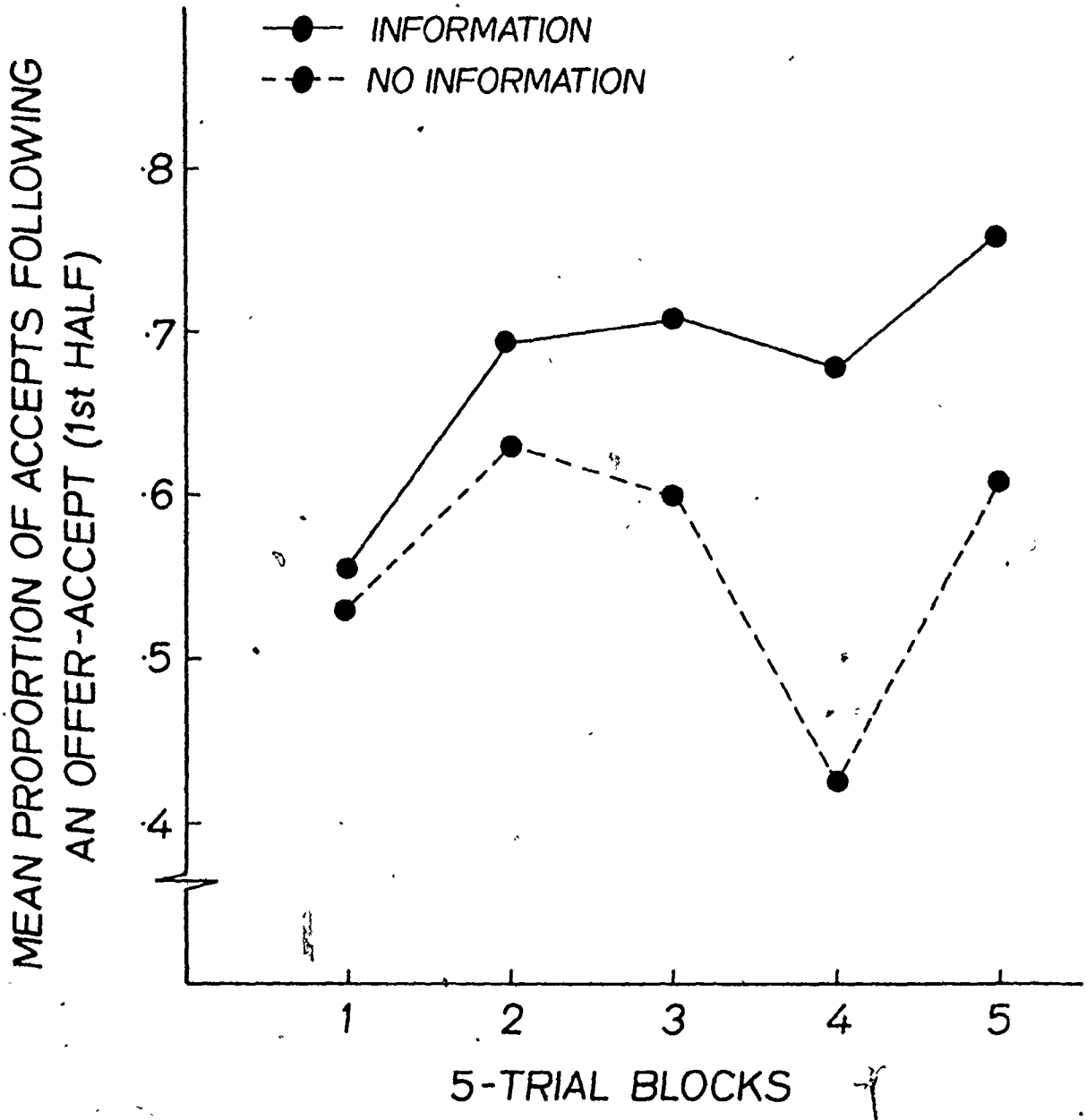

Figure IV.4 (a) Trial Blocks x Information Interaction in the case of Accepts following an Offer-Accept

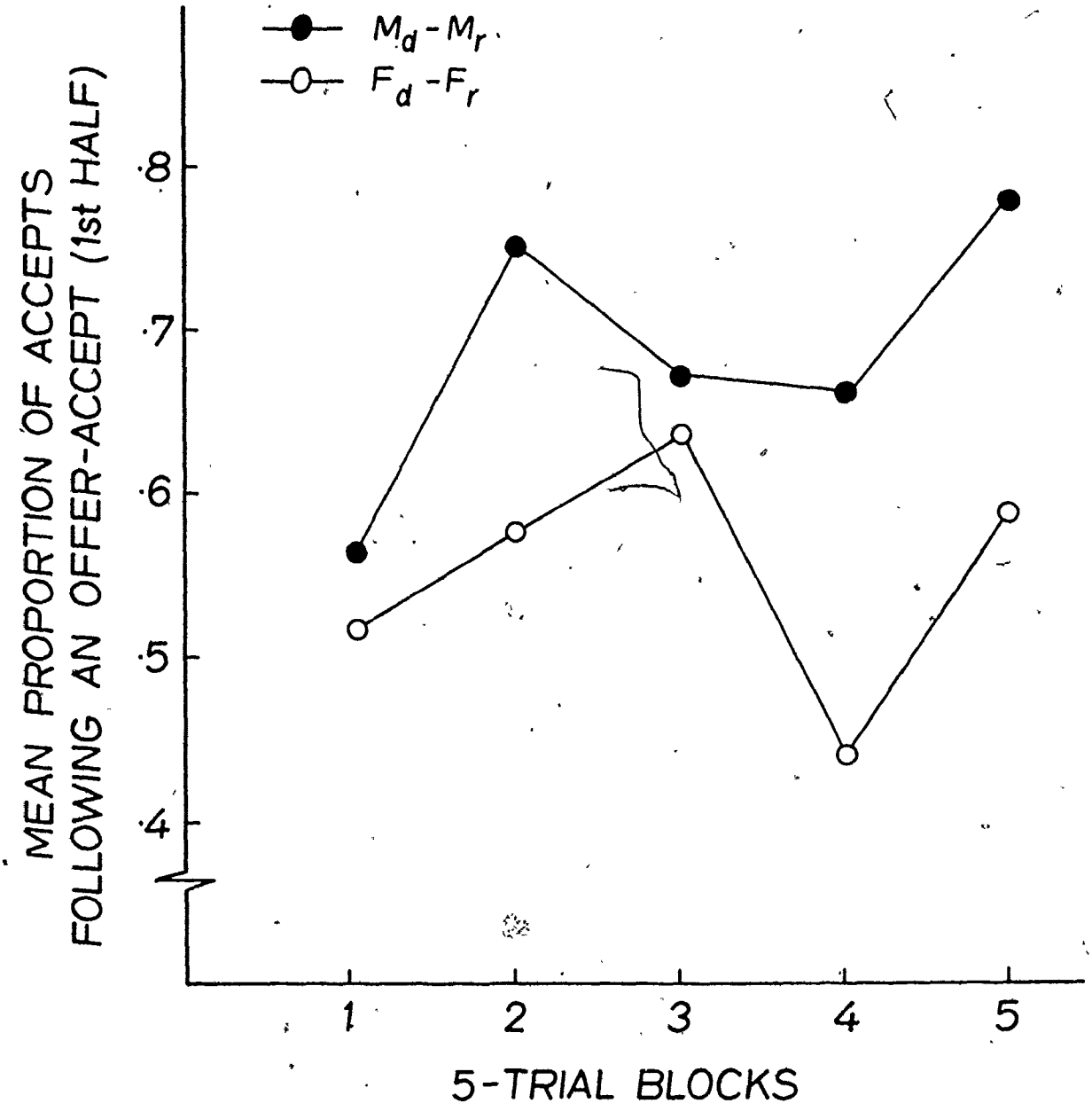

Figure IV.4 (b) Trial Blocks x Sex composition Interaction in the case of Accepts following an Offer-Accept

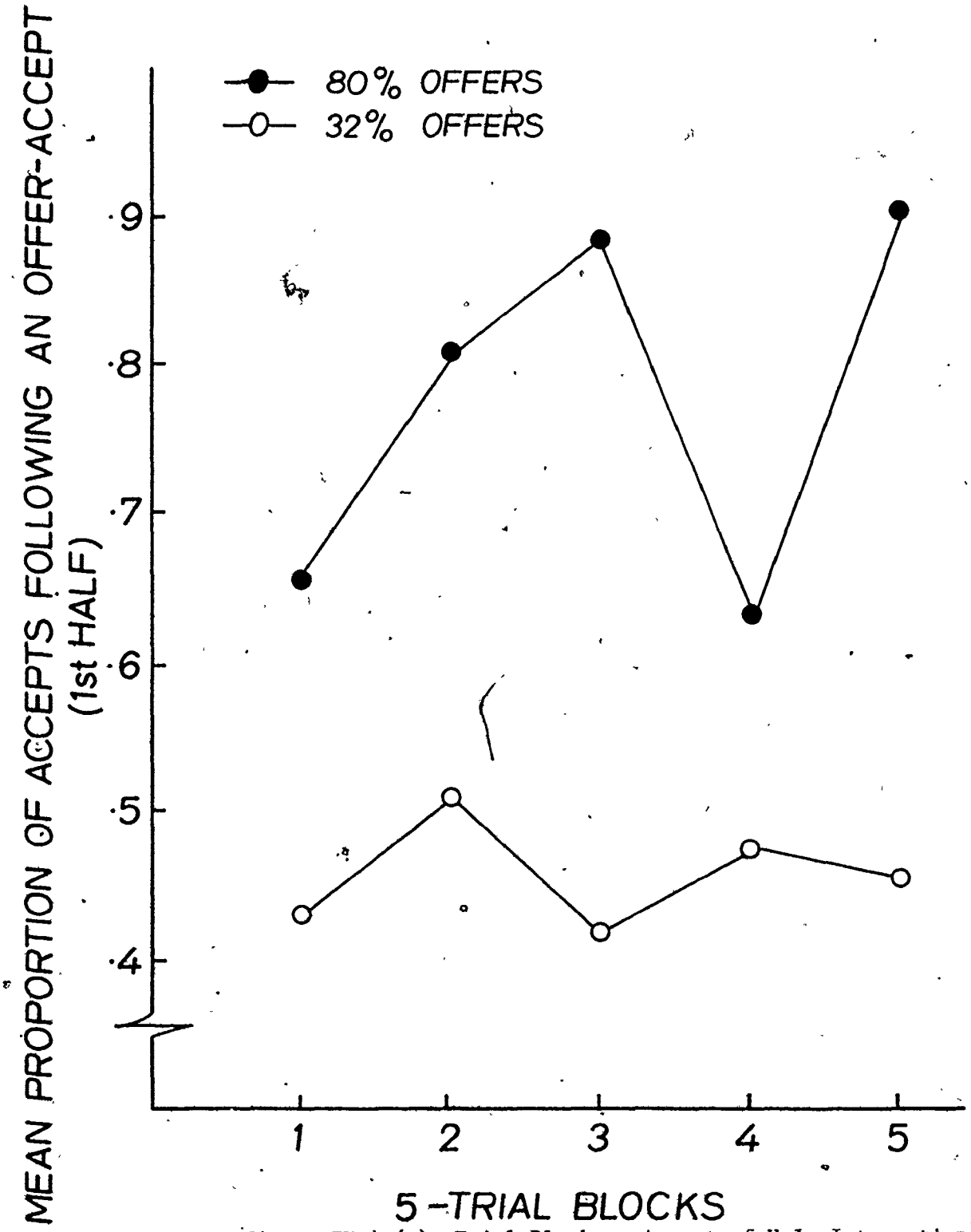

Figure IV.4 (c) Trial Blocks x Amount of Help Interaction in the case of Accepts following an Offer-Accept

Correlations

As in the case of Experiment II and III, correlations were computed between choices in the 1st half and those in the 2nd half. But since the donor's choices in the 1st half and the corresponding choices by the recipient in the 2nd half were held constant for the two Switch groups, correlations were computed mainly between Accept-related choices in the prior situation and the equivalent Offer-related choices in the subsequent situation. Table IV.4 indicates that reciprocity as shown by a positive and significant correlation was found in the case of Accepts following an Offer-Accept outcome in the 1st half, and Offers following an Offer-Accept outcome in the 2nd half. Other correlations were small in magnitude and failed to reach a statistically significant level.

Insert Table IV.4 about here

The positive and significant correlations obtained in the case of the No switch condition reflect the fact that recipients who made a large proportion of Accept-related choices in the prior situation continued to do so in the subsequent situation, and those who made a small proportion of Accept-related choices in the prior situation did the same in the subsequent situation. This finding is in general similar to that in the previous experiments.

Details of the analyses of variance conducted on various choice-measures (means and standard deviations) are presented in Table IV.5 to Table IV.11.

Table IV.3 Average Proportions of Choices under Small/Large Amount of Help (Switch groups)

Choice measure	Small Amount (32% Offers)	Large Amount (80% Offers)
Accepts	58.4 %	80.3 %
Accepts,given an Offer	71.8 %	87.2 %
Accepts following an Offer	58.2 %	79.4 %
Accepts following an Offer-Accept	45.9 %	77.9 %
Offers	34.3 %	54.9 %
Offers following an Accept	33.7 %	55.2 %
Offers following an Offer-Accept	23.1 %	57.1 %

Table IV.4 Correlations between 1st half and 2nd half Proportions of Choices

Switch group (n=48)			No Switch group (n=24)	
1st Half	2nd Half			
Accepts	Offers	.025	Accepts	.716 **
Accepts, given an Offer	Offers	.071	Accepts, given an Offer	.775 **
Accepts following an Offer	Offers following an Offer	.062	Accepts following an Offer	.664 **
Accepts following an Offer-Accept	Offers following an Offer-Accept	.289 *	Accepts following an Offer-Accept	.827 **

* $p < .05$ ** $p < .01$

Table IV.5 Proportion of Accepts: Means and Standard Deviations

Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.70	.83	.60	.83	.77
SD:	.209	.234	.335	.151	.234

(n = 6)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.67	.87	.87	.80	1.0
SD:	.163	.163	.242	.179	0

(n = 6)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.63	.57	.60	.43	.50
SD:	.082	.294	.219	.197	.303

(n = 6)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.90	.87	.97	.70	.93
SD:	.109	.103	.082	.209	.163

(n = 6)

No Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.60	.60	.45	.47	.60
SD:	.191	.319	.297	.334	.241

(n = 12)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.68	.85	.75	.75	.87
SD:	.233	.293	.228	.228	.215

(n = 12)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.60	.55	.38	.42	.55
SD:	.171	.258	.199	.233	.124

(n = 12)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.67	.73	.73	.63	.82
SD:	.287	.311	.299	.293	.313

(n = 12)

continued .....

Table IV.5 Proportion of Accepts: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		359			
Between subjects		(71)			
A (Information)	1.096	1	1.096	4.437	$p < .05$
B (Sex composition)	.376	1	.376		
C (Amount of help)	3.832	1	3.832	15.514	$p < .001$
AB	.016	1	.016		
AC	.008	1	.008		
BC	.232	1	.232		
ABC	.312	1	.312		
Error(between)	15.834	64	.247		
Within subjects		(288)			
D (Trial blocks)	.664	4	.166	18.444	$p < .001$
AD	.088	4	.022	2.44	$p < .05$
BD	.472	4	.118	13.111	$p < .001$
CD	.544	4	.136	15.111	$p < .001$
ABD	.232	4	.058	6.444	$p < .001$
ACD	.096	4	.024		
BCD	.008	4	.002		
ABCD	.064	4	.016		
Error(within)	2.413	256	.009		

Table IV.6 Proportion of Accepts, given an Offer: Means and Standard Deviations

Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.92	1.0	.83	1.0	.92
SD:	.204	0	.408	0	.204

(n = 6)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.79	.96	.92	.95	1.0
SD:	.292	.102	.204	.135	0

(n = 6)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.67	.50	.50	.50	.58
SD:	.258	.447	.548	.548	.492

(n = 6)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	1.0	.92	1.0	.95	.93
SD:	0	.129	0	.135	.163

(n = 6)

No Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.88	.88	.75	.58	.92
SD:	.226	.311	.452	.515	.195

(n = 12)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.69	.92	.81	.83	.90
SD:	.264	.163	.217	.267	.200

(n = 12)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.75	.63	.42	.50	.63
SD:	.261	.433	.515	.522	.377

(n = 12)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.69	.77	.75	.83	.83
SD:	.339	.345	.354	.334	.317

(n = 12)

continued.....

Table IV.6 Proportion of Accepts, given an Offer: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		359			
Between subjects		(71)			
A (Information)	.704	1	.704		
B (Sex composition)	1.92	1	1.92	4.987	$p < .05$
C (Amount of help)	1.896	1	1.896	4.925	$p < .05$
AB	.032	1	.032		
AC	.176	1	.176		
BC	1.688	1	1.688	4.384	$p < .05$
ABC	.328	1	.328		
Error (between)	24.647	64	.385		
Within subjects		(288)			
D (Trial blocks)	.368	4	.092	2.421	$p < .05$
AD	.192	4	.048		
BD	.328	4	.082	2.158	$p < .07$
CD	.712	4	.178	4.684	$p < .01$
ABD	.200	4	.050		
ACD	.200	4	.050		
BCD	.016	4	.004		
ABCD	.104	4	.026		
Error (within)	9.808	256	.038		

Table IV.7 Proportion of Accepts following an Offer: Means and Standard Deviations

Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.50	.83	.50	.83	.75
SD:	.548	.258	.447	.408	.274

(n = 6)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.58	.83	1.0	.72	1.0
SD:	.204	.204	0	.252	0

(n = 6)

32% Offers ($F_d - F_r$)

$\bar{X}$:	.67	.50	.67	.83	.58
SD:	.516	.316	.258	.408	.204

(n = 6)

80% Offers ($F_d - F_r$)

$\bar{X}$:	.88	.92	1.0	.56	.93
SD:	.137	.129	0	.274	.163

(n = 6)

No Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.58	.63	.38	.42	.54
SD:	.515	.311	.377	.515	.257

(n = 12)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.69	.88	.89	.67	.87
SD:	.285	.169	.217	.247	.215

(n = 12)

32% Offers ($F_d - F_r$)

$\bar{X}$:	.50	.54	.42	.50	.46
SD:	.522	.334	.289	.522	.257

(n = 12)

80% Offers ($F_d - F_r$)

$\bar{X}$:	.65	.71	.81	.47	.82
SD:	.291	.334	.299	.333	.313

(n = 12)

continued.....

Table IV.7 Proportion of Accepts following an Offer:Summary of Analysis of Variance

Source of variation	SS	Df	MS	F
Total		359		
Between subjects		(71)		
A (Information)	1.408	1	1.408	5.120 $p < .05$
B (Sex composition)	.088	1	.088	
C (Amount of help)	3.616	1	3.616	13.149 $p < .005$
AB	.088	1	.088	
AC	.096	1	.096	
BC	0	1	0	
ABC	.112	1	.112	
Error (between)	17.571	64	.275	
Within subjects		(288)		
D (Trial blocks)	.792	4	.198	2.538 $p < .05$
AD	.296	4	.074	
BD	.528	4	.132	
CD	2.080	4	.520	6.667 $p < .001$
ABD	.304	4	.076	
ACD	.264	4	.066	
BCD	.432	4	.108	
ABCD	.184	4	.046	
Error (within)	20.014	256	.078	

Table IV.8 Proportion of Accepts following an Offer-Accept:Means and Standard Deviations

Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.50	.75	.50	.83	.75
SD:	.548	.274	.447	.408	.418

(n = 6)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.49	.86	.92	.83	1.0
SD:	.314	.154	.204	.279	0

(n = 6)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.33	.25	.42	.50	.33
SD:	.516	.418	.492	.548	.408

(n = 6)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.88	.92	1.0	.56	.96
SD:	.137	.129	0	.274	.102

(n = 6)

No Information

32% Offers ($M_d - M_r$)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.58	.58	.42	.33	.50
SD:	.515	.359	.417	.492	.302

(n = 12)

80% Offers ($M_d - M_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.66	.84	.83	.68	.86
SD:	.373	.229	.326	.297	.860

(n = 12)

32% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.33	.46	.33	.25	.25
SD:	.492	.498	.444	.452	.337

(n = 12)

80% Offers ($F_d - F_r$)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.55	.65	.81	.44	.82
SD:	.365	.391	.324	.351	.303

(n = 12)

continued.....

Table IV.8 Proportion of Accepts following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		359			
Between subjects		(71)			
A (Information)	1.136	1	1.136		
B (Sex composition)	1.44	1	1.44	3.057	$p < .07$
C (Amount of help)	8.192	1	8.192	17.393	$p < .001$
AB	0.	1	0		
AC	0	1	0		
BC	.720	1	.720		
ABC	.480	1	.480		
Error (between)	30.171	64	.471		
Within subjects		(288)			
D (Trial.blocks)	1.16	4	.290	4.677	$p < .01$
AD	.512	4	.128	2.065	$p < .07$
BD	.568	4	.142	2.290	$p < .06$
CD	1.328	4	.332	5.355	$p < .005$
ABD	.472	4	.118		
ACD	.408	4	.102		
BCD	.392	4	.098		
ABCD	.192	4	.048		
Error (within)	15 915	256	.062		

Table IV.9 Proportion of Offers: Means and Standard Deviations

Information & Switch

Trial blocks:		D_1	D_2	D_3	D_4	D_5
32% Offers (M_d - M_r)						
	$\bar{X}$:	.40	.23	.27	.27	.27
(n=6)	SD:	.283	.197	.242	.432	.432
80% Offers (M_d - M_r)						
	$\bar{X}$:	.70	.67	.67	.73	.67
	SD:	.469	.269	.393	.489	.388
32% Offers (F_d - F_r)						
	$\bar{X}$:	.37	.27	.17	.30	.10
(n=6)	SD:	.151	.103	.234	.245	.167
80% Offers (F_d - F_r)						
	$\bar{X}$:	.70	.77	.47	.60	.63
	SD:	.469	.266	.393	.489	.388

No Information & Switch

Trial blocks:		D_1	D_2	D_3	D_4	D_4
32% Offers (M_d - M_r)						
	$\bar{X}$:	.50	.53	.60	.37	.53
(n=6)	SD:	.434	.413	.489	.446	.516
80% Offers (M_d - M_r)						
	$\bar{X}$:	.57	.57	.53	.43	.60
	SD:	.388	.388	.413	.463	.456
32% Offers (F_d - F_r)						
	$\bar{X}$:	.40	.40	.27	.30	.30
(n=6)	SD:	.219	.126	.301	.209	.374
80% Offers (F_d - F_r)						
	$\bar{X}$:	.40	.33	.30	.37	.27
	SD:	.489	.450	.395	.497	.432

No Switch (Accepts)

Trial blocks:		D_1	D_2	D_3	D_4	D_5
32% Offers (M_d - M_r)						
	$\bar{X}$:	.67	.73	.77	.67	.73
(n=6)	SD:	.207	.242	.151	.207	.301
80% Offers (M_d - M_r)						
	$\bar{X}$:	.83	.87	.87	.87	.87
	SD:	.234	.103	.163	.163	.242
32% Offers (F_d - F_r)						
	$\bar{X}$:	.47	.43	.30	.33	.37
(n=6)	SD:	.207	.234	.209	.242	.234
80% Offers (F_d - F_r)						
	$\bar{X}$:	.63	.86	.73	.73	.90
	SD:	.344	.103	.207	.301	.109

continued.....

Table IV.9 Proportion of Offers: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		359			
Between subjects		(71)			
A (Information)	4.548	2	2.274	5.363	$p < .01$
B (Sex composition)	2.025	1	2.025	4.776	$p < .025$
C (Amount of help)	4.670	1	4.67	11.014	$p < .001$
AB	.456	2	.228		
AC	2.246	2	1.123		
BC	.107	1	.107		
ABC	.358	2	.179		
Error (between)	25.417	60	.424		
Within subjects		(288)			
D (Trial blocks)	.248	4	.062		
AD	.364	8	.046		
BD	.288	4	.072		
CD	.118	4	.029		
ABD	.176	8	.022		
ACD	.118	8	.015		
BCD	.079	4	.019		
ABCD	.201	8	.025		
Error (within)	8.296	240	.035		

Table IV.10 Proportion of Offers following an Accept: Means and Standard Deviations

Information & Switch

Trial blocks:		D_1	D_2	D_3	D_4	D_5
32% Offers (M_d - M_r)	$\bar{X}$:	.37	.23	.27	.27	.30
(n=6)	SD:	.262	.197	.242	.432	.415
80% Offers (M_d - M_r)	$\bar{X}$:	.71	.67	.67	.73	.63
	SD:	.459	.393	.413	.413	.427
32% Offers (F_d - F_r)	$\bar{X}$:	.29	.27	.17	.30	.10
(n=6)	SD:	.102	.103	.234	.245	.167
80% Offers (F_d - F_r)	$\bar{X}$:	.71	.77	.47	.60	.63
	SD:	.459	.266	.393	.489	.388

No information & Switch

Trial blocks:		D_1	D_2	D_3	D_4	D_5
32% Offers (M_d - M_r)	$\bar{X}$:	.46	.53	.60	.37	.53
(n=6)	SD:	.459	.413	.489	.446	.516
80% Offers (M_d - M_r)	$\bar{X}$:	.50	.57	.53	.43	.60
	SD:	.418	.388	.413	.463	.456
32% Offers (F_d - F_r)	$\bar{X}$:	.42	.40	.27	.30	.30
(n=6)	SD:	.258	.126	.301	.203	.374
80% Offers (F_d - F_r)	$\bar{X}$:	.38	.33	.30	.53	.27
	SD:	.494	.450	.395	.516	.432

No Switch (Accepts following an Offer)

Trial blocks:		D_1	D_2	D_3	D_4	D_5
32% Offers (M_d - M_r)	$\bar{X}$:	.67	.75	.67	.50	.83
(n=6)	SD:	.516	.274	.258	.548	.258
80% Offers (M_d - M_r)	$\bar{X}$:	.79	.83	.95	.78	.87
	SD:	.292	.129	.135	.273	.242
32% Offers (F_d - F_r).	$\bar{X}$:	.33	.42	.25	.33	.42
(n=6)	SD:	.516	.376	.274	.516	.376
80% Offers (F_d - F_r)	$\bar{X}$:	.63	.88	.83	.61	.90
	SD:	.345	.137	.279	.390	.109

continued.....

Table IV.10 Proportion of Offers following an Accept:Summary of Analysis of Variance

Source of variation	SS	Df	MS	F
Total		359		
Between subjects		(71)		
A (Information/Switch)	3.815	2	1.908	4.148 $p < .05$
B (Sex composition)	1.78	1	1.78	3.869 $p < .06$
C (Amount of help)	5.15	1	5.15	11.196 $p < .01$
AB	.355	2	.178	
AC	2.223	2	1.112	
BC	.187	1	.187	
ABC	.320	2	.160	
Error (between)	27.629	60	.460	
Within subjects		(288)		
D (Trial blocks)	.242	4	.060	
AD	.690	8	.086	
BD	.353	4	.088	
CD	.058	4	.015	
ABD	.275	8	.034	
ACD	.282	8	.035	
BCD	.084	4	.021	
ABCD	.336	8	.042	
Error (within)	12.991	240	.054	

Table IV.11 Proportion of Offers following an Offer-Accept: Means and Standard Deviations

Information & Switch

32% Offers (M_d - M_r)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.17	.17	.18	.22	.25
(n=6) SD:	.279	.408	.309	.404	.418

80% Offers (M_d - M_r)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.67	.67	.78	.67	.75
SD:	.516	.516	.404	.516	.418

32% Offers (F_d - F_r)

$\bar{X}$:	.08	0	.08	.13	.06
(n=6) SD:	.204	0	0	.306	.135

80% Offers (F_d - F_r)

$\bar{X}$:	.67	.86	.47	.67	.68
SD:	.516	.221	.401	.516	.424

No Information & Switch

32% Offers (M_d - M_r)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.42	.45	.56	.38	.50
(n=6) SD:	.492	.502	.502	.440	.548

80% Offers (M_d - M_r)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.67	.58	.39	.58	.58
SD:	.408	.492	.491	.492	.492

32% Offers (F_d - F_r)

$\bar{X}$:	.17	.08	.25	.22	.25
(n=6) SD:	.258	.204	.418	.346	.418

80% Offers (F_d - F_r)

$\bar{X}$:	.33	.29	.31	.50	.29
SD:	.516	.459	.400	.548	.459

No Switch (Accepts following an Offer-Accept)

32% Offers (M_d - M_r)

Trial blocks:	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.50	.58	.75	.50	.75
(n=6) SD:	.548	.492	.418	.548	.418

80% Offers (M_d - M_r)

	D_1	D_2	D_3	D_4	D_5
$\bar{X}$:	.75	.83	.95	.69	.96
SD:	.387	.129	.135	.268	.102

32% Offers (F_d - F_r)

$\bar{X}$:	.17	.33	.08	.17	.25
(n=6) SD:	.548	.492	.418	.548	.418

80% Offers (F_d - F_r)

$\bar{X}$:	.58	.88	.71	.56	.87
SD:	.358	.137	.401	.405	.148

continued.....

Table IV.11 Proportion of Offers following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		359			
Between subjects		(71)			
A (Information/Switch)	3.001	2	1.501		
B (Sex composition)	3.474	1	3.474	6.733	$p < .025$
C (Amount of help)	11.018	1	11.018	21.353	$p < .001$
AB	.602	2	.301		
AC	2.769	2	1.385		
BC	.478	1	.478		
ABC	.270	2	.135		
Error (between)	30.971	60	.516		
Within subjects		(288)			
D (Trial blocks)	.330	4	.083		
AD	.737	8	.092		
BD	.284	4	.071		
CD	.164	4	.041		
ABD	.472	8	.059		
ACD	.406	8	.051		
BCD	.083	4	.021		
ABCD	.296	8	.037		
Error (within)	17.530	240	.073		

Insert Table IV.5-Table IV.11 about here

Discussion

A glance at the results of this experiment indicates that holding the donor's choices constant produced stronger effects of the Information and Switch variables, and also more unambiguous effects of sex composition. The new variable, namely amount of help given to the recipient, was also found to have very clear-cut effects. Another difference between the findings of the two previous experiments and the present one was with respect to the effects of trial blocks in conjunction with most of the independent variables.

Considering the Information variable, once again there was evidence for the effect of indebtedness (Greenberg, 1968, 1978) found in Experiment II and III, as well as in other studies cited earlier. Thus recipients who knew about a forthcoming opportunity for returning the favour accepted more help than those who were unaware of such an opportunity. As would be expected on the basis of the reciprocity norm (Gouldner, 1960), when the opportunity arose, those who knew about it made more Offer-related choices to the former donor than those who did not know about the coming opportunity.

With regard to sex differences, this experiment showed that females made fewer Accept-related choices than males in the prior situation. This result is discordant with experimental evidence showing that females are more dependent (Mischel, 1966; Gruder and Cook, 1971),

are more "help-seeking" than males (Whiting and Edwards, 1973), and more passive and submissive than males (Wiley, 1973) all leading to the expectation that female recipients would accept more help than male recipients. As one possible interpretation, it was suggested earlier (Chapter IV) that females in this experiment may be striving to appear 'good' by not taking too many Offer choices. This is also in line with evidence from studies that show that females tend to be more sensitive to the social aspects of a choice setting, while males are more concerned about optimizing gains (e.g. Horai and Tedeschi, 1969; Halpin and Pilisuk, 1970, etc.) The higher proportion of Accept-related choices by males in the prior situation testifies to their attempt to maximize gains.

In the subsequent situation, males were in general found to make more Offer-related choices than females. This sex difference might imply several factors. Considering the subsequent situation alone, the lower level of Offer-related choices by females is consistent with findings from other choice-setting studies (Chapter IV, p.99). When taken in conjunction with prior Accept-related choices, the same finding may indicate reciprocity and equity. Thus males made more Offer-related choices because they had accepted more in the prior situation, while females offered help equivalent to their level of prior Accept-related choices. In this experiment, then, males and female alike followed the reciprocity and equity norms, unlike subjects in some other experiments that show greater equity considerations among females than among males (Lane and Messé, 1971), especially in the presence of an

audience (Kidder, Bellettirie and Cohn, 1977), or those that show more reciprocity among men than among women toward a same-sex other (Meeker and Hornung, 1976). To re-state the finding in the subsequent situation, the lower level of subsequent Offer-related choices by females relative to males, may express not competitiveness or lack of generosity per se, as suggested by some earlier choice-setting studies, but may indicate reciprocity and equity in accordance with the females' prior level of Accept-related choices.

The findings with regard to the third factor investigated in this experiment are somewhat difficult to explain. While it is not intuitively implausible that a recipient would accept more help from a more generous donor (one who gives a larger proportion of Offers) than from a less generous donor(one who gives a small proportion of Offers), it is not easy to explain the underlying process. One possibility is that of liking for the donor. As indicated in the findings by Regan (1971), Gross and Latané (1974), and Freeman (1977), a more generous donor may be liked more than, generate less obligation and thus lead to greater acceptance of help than a less generous donor. Such an interpretation would carry more weight, however, if it had been borne out by significant differences in ratings of liking for the benefactor between the 80%-Offers and 32%-Offers condition.

A second interpretation is that the donor who offered help 80% of the time was perceived as 'truly' helpful, thus encouraging the recipient to make Accept-related choices. This perception might have been confirmed over time. In contrast, the donor who offered help only 32%

of the time was perceived as being reluctant to give help, thus discouraging the recipient from accepting the favour. As in the case of a Large amount of help, this perception might have been confirmed over time. The Trial blocks by Amount interaction obtained in this experiment bears some evidence for this explanation. An inspection of the graphs showing these interactions indicates that the proportion of the relevant Accept-related choice tends to increase in the case of 80% Offers, while it tends to remain the same or to decrease over trials, in the case of 32% Offers.

The difference between the Large amount and Small amount conditions in the subsequent situation can be accounted for by the operation of the reciprocity norm, and in terms of equity. Former recipients who had been offered a large amount of help, in their turn as donors, made a large proportion of Offer-related choices, while former recipients who had been offered a small amount of help subsequently made a small proportion of Offer-related choices. This finding is consistent with results from other studies (Pruitt, 1968; Wilke and Lanzetta,1970; Kahn and Tice,1973,etc.).

A number of specific observations need to be made in connection with reciprocity in this study. Comparing the proportion of subsequent Offer-related choices with the proportion of Offers made by the donor in the prior situation, it was found that the subsequent proportion was in general lower than the prior Offers, in the case of a large amount of help. When a small amount of help was offered, the level of Offers returned was more similar to that received previously. Thus, when a large amount of help was offered,less help was later returned to the

donor, showing an overall under-reciprocation[1] of Offer-related choices. This finding may reflect a response to role-reversal, since the former recipient has now moved from a more rewarding to a less rewarding position. This result is similar to that reported by Michener, Vaske, Schleifer , Plazewski and Chapman (1975), that in a bargaining setting, subjects who occupied a strong role did not reciprocate the other person's concession rate to the same extent as those who were in a weak role, but rather tended to make fewer concessions than those received.

Secondly, there was overall reciprocity in terms of the Amount of help and Information conditions, rather than a direct reciprocity as indicated by positive correlations between 1st half-Accept-related choices and 2nd Half-Offer-related choices. Thus those who were offered a large amount of help, and those who were informed about a later opportunity for returning the favour accepted more help initially and returned more help subsequently, than those who were offered a small amount of help and those who were not informed about a later opportunity for reciprocation. Direct reciprocity occurred in the case of one conditional choice-measure (namely, Accepts following an Offer-Accept, and Offers following an Offer-Accept).

Thirdly, considering overall reciprocity in relation to the Amount of help and Information factors, it was found that the proportion of subsequent Offer-related choices was lower in the Small amount/Information and Switch condition, than in the Small amount/No information and

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1 The term 'under-reciprocation' may be a misnomer, since by definition, reciprocation implies equal return.

Switch condition. The proposed effect of indebtedness, reciprocity and equity would lead us to expect a higher proportion of Offer-related choices in the Information and Switch condition. However, in the case of a Small amount of Offers by the donor in the prior situation, the recipient may resent such a low level of generosity to a greater extent when there is a future opportunity for the favour to be returned(Information condition) than when there is no later opportunity (No information condition). Consequently, when the opportunity arises, the former recipient tends to under-reciprocate to a greater extent in the Information and Switch condition than in the No information and Switch condition.

Finally, as in the case of Experiments II and III, questionnaire responses were similar in the various experimental conditions. Some indication of how recipients explained to themselves the basis of choices by the donor is obtained from responses like the succinct remark made by one subject: " The point differential for me (10 to 1) was greater than that for him (2 to 1). Therefore he could do me a great favour while not hurting himself to any great degree. "

SUMMARY AND CONCLUSIONS

The experiment reported in this chapter differed from the two preceding studies in that the offers made by the donor were held constant by using a confederate. This enabled a comparison between the effect of a small and a large amount of help offered by the donor, when the donor's choices were independent of the recipient's choices, as distinguished from the interdependent-choice situation found in Experiments

II and III (where the donor's choices changed over time as a function of the recipient's choices in response to the donor's previous choices). The variables studied here were Information about and presentation of a subsequent opportunity for reciprocation, the Amount of help given and sex composition.

A comparison of the present findings with those of the two previous experiments indicated that the Information factor produced stronger effects than, but in the same direction as those in Experiments II and III. There was evidence for mediation by indebtedness in the recipients' acceptance of help in the prior situation (Greenberg, 1968; Greenberg and Shapiro, 1971; Shumaker and Jackson, 1977), further corroborated by the presentation of a subsequent opportunity. There was also support for the operation of the reciprocity norm (Gouldner,1960).

Sex differences in accepting help and later reciprocation were more consistent in this experiment than in previous ones. It was proposed that female recipients' lower level of Accept-related choices in the prior situation might be due to their greater concern about appearing good by not taking a large amount of rewards, as compared with the male recipients' greater concern for optimizing gains. Subsequently, both males and females acted in accordance with the reciprocity norm.

The obtained effect of the Amount of help variable showed that more help was accepted and subsequently returned when the donor offered a large amount of help than when he/she offered a small amount of help to the recipient in the prior situation. This was tentatively explained

as being due to an attribution of genuinely helpful motives to the donor in the case of a large amount of help, as contrasted with attributed reluctance to help in the case of a small amount of help.

At this point, it was decided that independent choices by the donor, non-contingent on the recipient's choices, would help to bring out the effects of manipulated variables on the recipient's responses, in a more clear way than the interdependent choice situation employed initially in this research. Therefore, the remaining variables were also investigated adopting this type of independent-choice setting.

The next chapter describes two experiments which examine the effect of Amount of help jointly with other variables.

CHAPTER SIX

THE RECIPIENT'S REACTIONS TO HELP IN A CHOICE SETTING - III

Independent Choices by the Donor

Having explored the effects of information about and presentation of a later opportunity for returning a favour, and the amount of help given, on the recipient's acceptance and subsequent reciprocation of help, and having found some sex differences, it was decided to investigate the effect of amount of help in conjunction with a statement of intention to give a specific amount of help. When the donor made no prior statement about the amount of help he/she intended to give, as was the case in Experiment IV, it was found that the amount of help actually given affected the recipient's reactions. However, it is possible that a statement of intention by the donor might influence the recipient in a different way. With regard to the combined effect of a stated intention, and the amount of help mentioned in the intention, the following two possibilities were selected for investigation:

a) the donor may state the intention of offering a large or small amount of help, and may actually carry out or not carry out the stated intention;

b) the donor may state this intention conditionally or unconditionally with respect to choices expected from the recipient in a subsequent situation.

The next experiment in the present series was aimed at studying the first of these two possibilities, while the final experiment dealt

with the second possibility.

EXPERIMENT V

The Effect of Stated Intention and Amount of Help given on the Recipient's Reactions

A statement of intention of choice-behaviour in a setting like the present one would enable direct communication between the participants, and thereby provide more precise information about the communicator's plan of action. Very little evidence is available on the effect of this factor on the recipient of help. Kahn and Tice (1973) studied this variable, also manipulating the amount of help actually given, in a task-performance setting. Female subjects received a large or small amount of help from a fictitious supervisor who had stated an intention to help, not to help, or had stated no intention. While the amount of help actually given affected the amount of help returned later, the statement of intention itself did not have a significant effect. In a second experiment by the same investigators, ostensibly unknown to the supervisor, her intention was 'discovered' by the subjects instead of being directly conveyed to them. Here, the amount of help returned later was affected both by the intention to help and the actual amount of help given to the subjects.

To the extent that stating an intention is a form of communication, one may look to studies involving communication in a choice-setting for more evidence on the effects of this variable. In Deutsch's (1958) study using a mixed-motive game, communication about the plan of action affected the amount of cooperation. There was more cooperation

when subjects communicated between themselves than when there was no communication, possibly because communication established a trust relationship between the participants. Using a similar choice-setting Loomis (1959) varied the level of communication from a statement of expectation from the other, through statements of intention, retaliation, absolution, to complete information on all of these. He found that the mere sending of messages increased perceived trust as reflected in greater cooperation among the 'message' subjects than among the 'no message' subjects.

An intention to make a certain proportion or pattern of choices may be viewed as a promise by the donor, the effect of which factor has been shown in a few studies. For example, Evans (1964), employing a Prisoner's Dilemma game, presented an enforceable promise (that is, one in which the promisor would be penalized for breaking the promise), an unenforceable promise, or no promise by a programmed other. He found subjects most cooperative in the 'enforceable promise' condition, and least cooperative in the 'no promise' condition. In both of these 'promise' conditions, the promisor was considered to be more trustworthy than was the 'other' in the 'no promise' condition. Such an effect of enforceability of a promise, however, was not found by Radlow and Weidner (1966). Their subjects cooperated when the other's stated intention required them to do so, and competed when the commitment required competition. These authors suggest on the basis of some other results of the same study that the presence of a threat along with a promise is likely to produce greater cooperation than would a promise

alone.

Yet another aspect of stated intention may be seen in the rate at which a promise is honoured, in a choice setting. The rate at which a promise is carried out establishes the credibility of the promisor and thereby affects the other's choices. In a study by Tedeschi, Schlenker, Lindskold and Bonoma (1969), the rate of honouring a promise regarding choices in a mixed-motive game interacted with the promisor's attractiveness. When the promisor was low in attractiveness he was liked more when his promises were more credible than when they were less credible. This was not found to be true in the case of a highly attractive promisor. An experiment on the same lines by Tedeschi, Powell, Lindskold and Gahagan (1969) did not find any significant effect of the rate of honouring promises on cooperative choices, although this factor had different effects on males and females.

It would thus appear that stating an intention about the amount or rate of a particular choice may affect the other person's choices. In an Altruism matrix, whether the donor acts on his stated intention or does not act on it would be expected to influence both the recipient's prior accepts and subsequent offers. From the studies cited above it is not very clear how the factor of honouring or not honouring a stated intention would affect choices. Therefore, the present study was directed toward the following question: If the donor states an intention to give a small or large amount of help, would the potential recipient accept more help in the former or in the latter condition ? Subsequently, would the former recipient be more likely to return the favour in the former or in the latter condition ?

In addition, if the donor actually offers the amount of help stated in the intention, or does not offer the amount of help stated, would the recipient accept more help, and return more help subsequently in the former condition than in the latter condition ?

Design

The independent variables in this experiment were: amount of help stated in the intention (About 30% Offers[1] / About 80% Offers); actual amount of help given (32% Offers/ 80% Offers); donor's/recipient's sex (male donor-male recipient/ female donor-female recipient dyad); and trial blocks of 5 trials each. This experiment thus had a 2(Stated intention) x 2 (Amount of help given) x 2(Sex composition) x 5(Trial blocks) factorial design in both the prior and subsequent situation, with repeated measures on the trial-blocks factor. The design did not include a 'No stated intention' control group, since this information is already available from Experiment IV.

The dependent variables in this experiment were the same as in the preceding one.

Expected outcomes

The following effects of the major independent variables were expected to occur:

---

1 In the'Small amount stated'condition, the actual proportion intended was 32% Offers, but in order to avoid any suspicion arising from the mention of an unusual number like 32, this proportion was 'rounded' to 30%. Stating this proportion as an approximate figure (i.e. About 30% Offers) was also expected to serve this purpose.

1. The proportion of Accept-related choices in the prior situation will be greater when the amount stated in the intention is large than when it is small. In the absence of direct empirical evidence on the effect of stated intention on the recipient's reaction, it is intuitively expected that a donor who states an intention to make a large number of Offers when he has the option of making a small number of Offers will be liked more than a donor who states an intention to make a small number of Offers. A helpful motive will more likely be attributed to the former donor than to the latter donor, and this will lead to acceptance of more Offers from the donor who states an intention to give a large amount of help than from one who states an intention to give a small amount of help.

2. The proportion of Accept-related choices will also be greater when the actual amount of help given is large than when it is small. The proportion of subsequent Offer-related choices will be higher in the Large amount condition than in the Small amount condition. This prediction is based directly on the finding in Experiment IV related to the Amount of help.

Subjects: Forty undergraduates (20 males and 20 females) from the first and second years of McMaster University served as subjects in this experiment. Three male and 3 female undergraduates averaging the same age as the sample participated as confederates. Since there was no verbal communication between the subject and confederate, and since all confederates were given identical instructions regarding choices,

differences between confederates would not be expected to bias the results in any way.

Procedure

As in the case of the preceding experiment, a successive-choice procedure holding the donor-choices (1st half) constant and independent of the recipient's choices, was adopted here. The only differences between the procedure of the present experiment and that of Experiment IV were that

a) The 'Information' variable was absent.

b) All subjects switched donor-roles midway between the experiment without prior information.

c) The Stated intention factor was manipulated as follows: As soon as the confederate(C) and subject(S) had read the instructions and had two practice trials, the experimenter(E) said:

> " There is another part of the experiment about which I'd now like to tell you.
>
> " The instructions say that you should not talk to each other. However, as part of the procedure, one of you will be allowed to send a message to the other about what he/she plans to do in the experiment. Who that person will be is randomly decided. In order to save time, I've already drawn lots for this purpose" (E ostensibly looks up a random schedule). "In this session, it is Yellow who will send the message."

E then handed a message sheet to Yellow containing two alternatives:

1) I intend to choose the (10,1 and 1,1) column on about 30% of the trials.

2) I intend to choose the (10,1 and 1,1) column on about 80% of the trials.

Yellow was then asked to check one of these alternatives, which he/she did according to E's special instructions[1] (depending on the randomly assigned experimental condition), unknown to S. E then handed the message sheet to Red, and started the first trial after Red had read Yellow's stated intention.

The Amount of help was manipulated as in Experiment IV (Chapter V, p.121). There were thus four combinations of Amount stated and Amount given conditions, as shown below. The first number in each refers to the amount stated, and the second number refers to the amount given:

a) 30% / 32% Offers (Similar condition)
b) 30% / 80% Offers (Discrepant condition)
c) 80% / 80% Offers (Similar condition)
d) 80% / 32% Offers (Discrepant condition)

The rest of the procedure was identical to that adopted in Experiment IV. The questionnaire[2] included a few additional items meant to be manipulation-checks.

Results

All dependent measures were analyzed in the same way as in previous experiments, with the difference that all analyses of variance involved equal n's. The major findings are described below.

Stated intention (Amount stated)

An examination of the average proportions of choices in the two Stated intention conditions revealed interesting differences,

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1 Which message was to be chosen was indicated to C on a sheet showing the pattern of choices to be made (see Appendix VII).

2 Appendix VIII

although the main effect of this factor failed to reach statistical significance. The proportion of Accept-related choices in the prior situation was higher in the Large amount-stated condition than in the Small-amount stated condition. But the proportion of Offer-related choices was higher when the intention stated a small amount than when it stated a large amount. Table V.1 gives the details of the proportions under these two conditions.

Insert Table V.1 about here

Amount of help given

As in the case of Experiment IV, the proportion of both Accept-related choices in the prior situation, and of Offer-related choices in the subsequent situation was greater in the Large amount condition than in the Small amount condition. This was consistent with expectations, even though the differences did not reach statistical significance in the case of Accept-related choices. The average proportions are presented in Table V.2.

Insert Table V.2 about here

Similar / Discrepant condition

The difference between the average proportion of choices when the donor carried out the stated intention (30%/32% Offers and 80%/80% Offers condition) and when the donor gave either much less or much more than stated in the intention (30%/80% Offers and 80%/32% Offers condition) was very slight. As evident from the proportions given

Table V.1 Average Proportion of Choices in the Small Amount Stated/ Large amount Stated Conditions

Choice measure	Stated Intention: Small amount stated	Stated Intention: Large amount stated
Accepts	63.6 %	73.8 %
Accepts,given an Offer	69.8 %	82.8 %
Accepts following an Offer	60.3 %	69.1 %
Accepts following an Offer-Accept	48.2 %	64.1 %
Offers	54.6 %	51.0 %
Offers following an Accept	55.2 %	49.8 %
Offers following an Offer-Accept	47.3 %	45.2 %

Table V.2 Average Proportion of Choices in the Small Amount Given/ Large Amount Given Conditions

Choice measure	Amount of Help Given: Small Amount (32% Offers)	Large Amount (80% Offers)
Accepts	67.2 %	70.2 %
Accepts,given an Offer	80.0 %	72.6 %
Accepts following an Offer	60.5 %	68.9 %
Accepts following an Offer-Accept	51.5 %	60.8 %
Offers	40.2 %	65.4 %
Offers following an Accept	41.6 %	63.4 %
Offers following an Offer-Accept	30.9 %	61.6 %

in Table V.3, with the exception of Accepts, all other Accept-related choices were in a higher proportion in the Discrepant condition than in the Similar condition. But the proportion of all Offer-related choices was higher in the Similar condition than in the Discrepant condition.

Insert Table V.3 about here

When the two Discrepant conditions were compared between themselves, the proportion of most Accept-related choices was found to be higher in the 80%/32% Offers condition than in the 30%/80% Offers condition. In the case of subsequent Offer-related choices, however, the proportion was higher in the 32%/80% Offers condition than in the 80%/ 32% Offers condition. In other words, acceptance of help by the recipient was governed more by the amount stated in the intention than the amount actually given, while subsequent reciprocation was governed more by the actual amount given in the prior situation than by the amount stated in the intention.

Sex composition

The findings of Experiment IV appeared even more strongly in this experiment with respect to sex composition. Table V.4 indicates that the proportions of both Accepts and Offer-related choices in the prior situation, and those of subsequent Offer-related choices were higher among male dyads than among female dyads. Morevoer, the effect of this factor in the case of most of the choice-measures was statistically significant.

Insert Table V.4 about here

Table V.3 Average Proportion of Choices in Similar and Discrepant Conditions

Choice measure	Stated intention/Amount given 30%/32% Offers	80%/80% Offers	30%/80% Offers	80%/32% Offers
Accepts	63.2 %	76.4 %	64.0 %	71.2 %
Accepts, given an Offer	73.0 %	78.6 %	66.5 %	87.0 %
Accepts following an Offer	56.0 %	73.2 %	64.5 %	65.0 %
Accepts following an Offer-Accept	43.0 %	68.1 %	53.4 %	60.0 %
Offers	42.4 %	64.0 %	66.8 %	38.0 %
Offers following an Accept	44.3 %	60.7 %	66.0 %	38.9 %
Offers following an Offer-Accept	33.8 %	62.4 %	60.7 %	28.0 %

	Similar	Discrepant
Accepts	69.8 %	67.6 %
Accepts, given an Offer	75.8 %	76.8 %
Accepts following an Offer	64.6 %	64.8 %
Accepts following an Offer-Accept	55.6 %	56.7 %
Offers	53.2 %	52.4 %
Offers following an Accept	52.5 %	52.5 %
Offers following an Offer-Accept	48.1 %	44.4 %

Table V.4 Sex Differences in Average Proportion of Choices

Choice measure	$M_d - M_r$	$F_d - F_r$
Accepts	75.4 %	62.0 %
Accepts, given an Offer	85.8 %	66.8 %
Accepts following an Offer	69.4 %	60.0 %
Accepts following an Offer-Accept	66.3 %	46.0 %
Offers	61.4 %	44.2 %
Offers following an Accept	61.8 %	43.2 %
Offers following an Offer-Accept	55.9 %	36.6 %

Trial Blocks

The proportion of Accepts, given an Offer varied significantly as an interactive function of Trial blocks, Stated intention and Sex composition, as indicated in Figure V.1. A significant Trial blocks by Amount of help interaction was observed in the case of Accepts following an Offer, and Accepts following an Offer-Accept outcome. The trend in the case of both measures was strikingly similar, and was as shown in Figure V.2 for the proportion of Accepts following an Offer.

An interesting finding with respect to this factor in this experiment was that, unlike any of the previous experiments, significant interactions involving trial blocks were obtained in the case of the proportion of Offers following an Accept. As illustrated in Figure V.3 (a) and (b), a significant Trial blocks by Stated intention interaction, and Trial blocks by Amount of help interaction was obtained for proportions of this choice-measure.

Insert Figure V.1 to Figure V.3 (a-b) about here

Correlations

Correlations computed between 1st half proportions and 2nd half proportions of various choices indicated that when the donor acted on his/her stated intention, the proportion of Accepts in the prior situation correlated positively and significantly with Offers in the subsequent situation and the proportion of Accepts following an Offer-Accept in the prior situation correlated similarly with the proportion of Offers following an Offer-Accept in the subsequent situation.

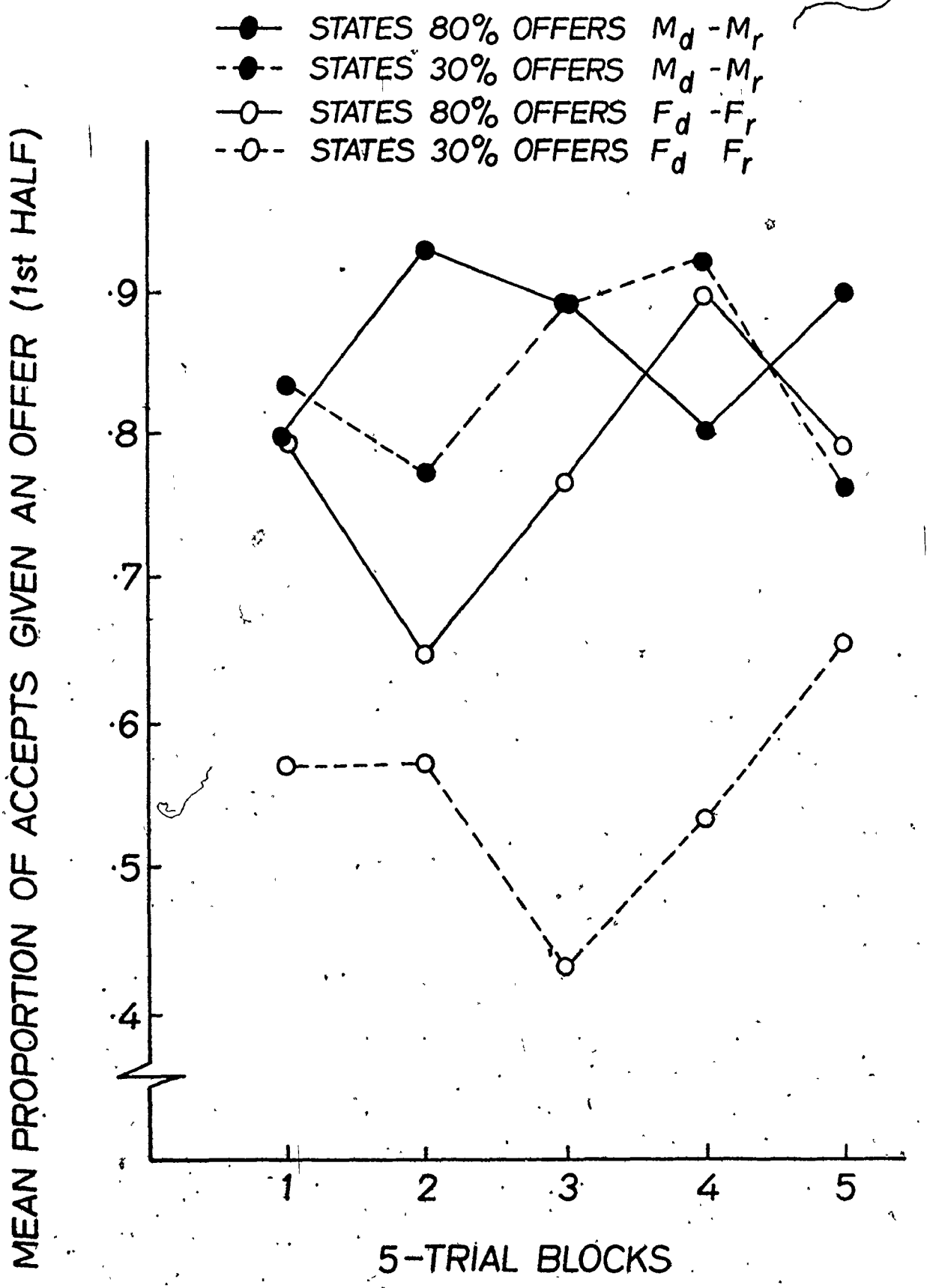


Figure V.1 Trial Blocks x Stated intention x Sex composition Interaction in the case of Accepts, given an Offer

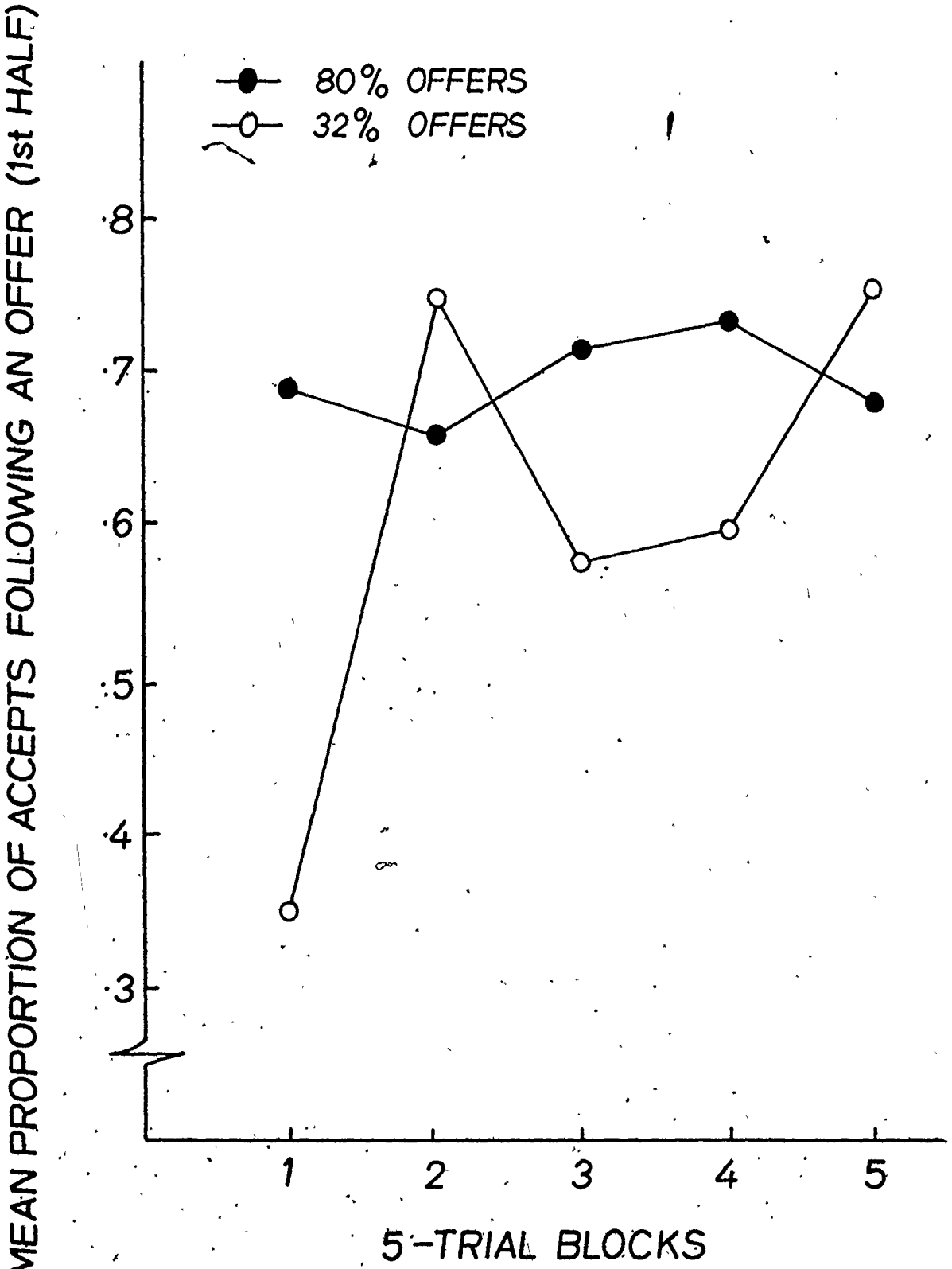


Figure V.2 Trial Blocks x Amount of Help Interaction in the case of Accepts following an Offer

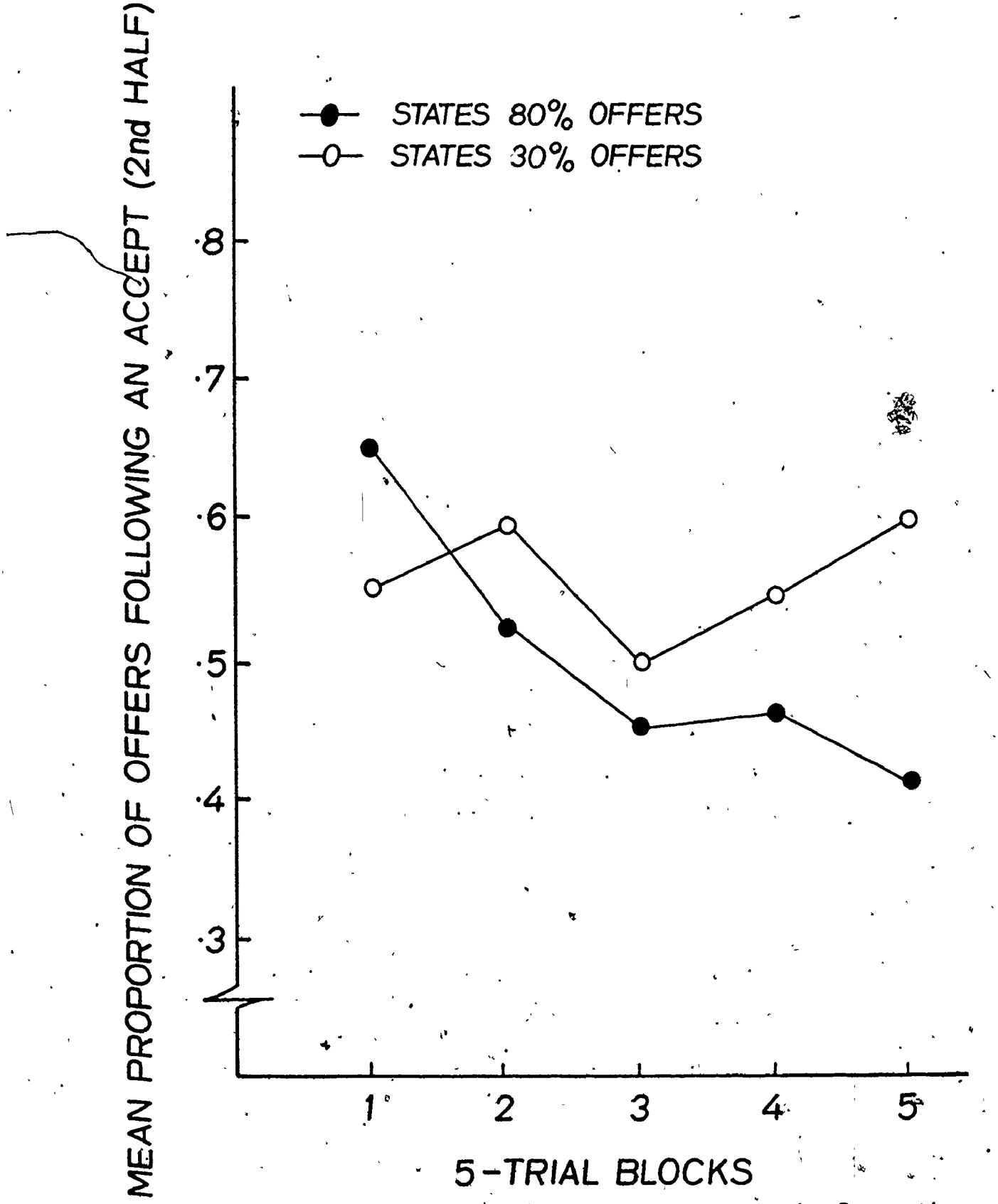


Figure V.3 (a) Trial Blocks x Stated intention Interaction in the case of Offers following an Accept

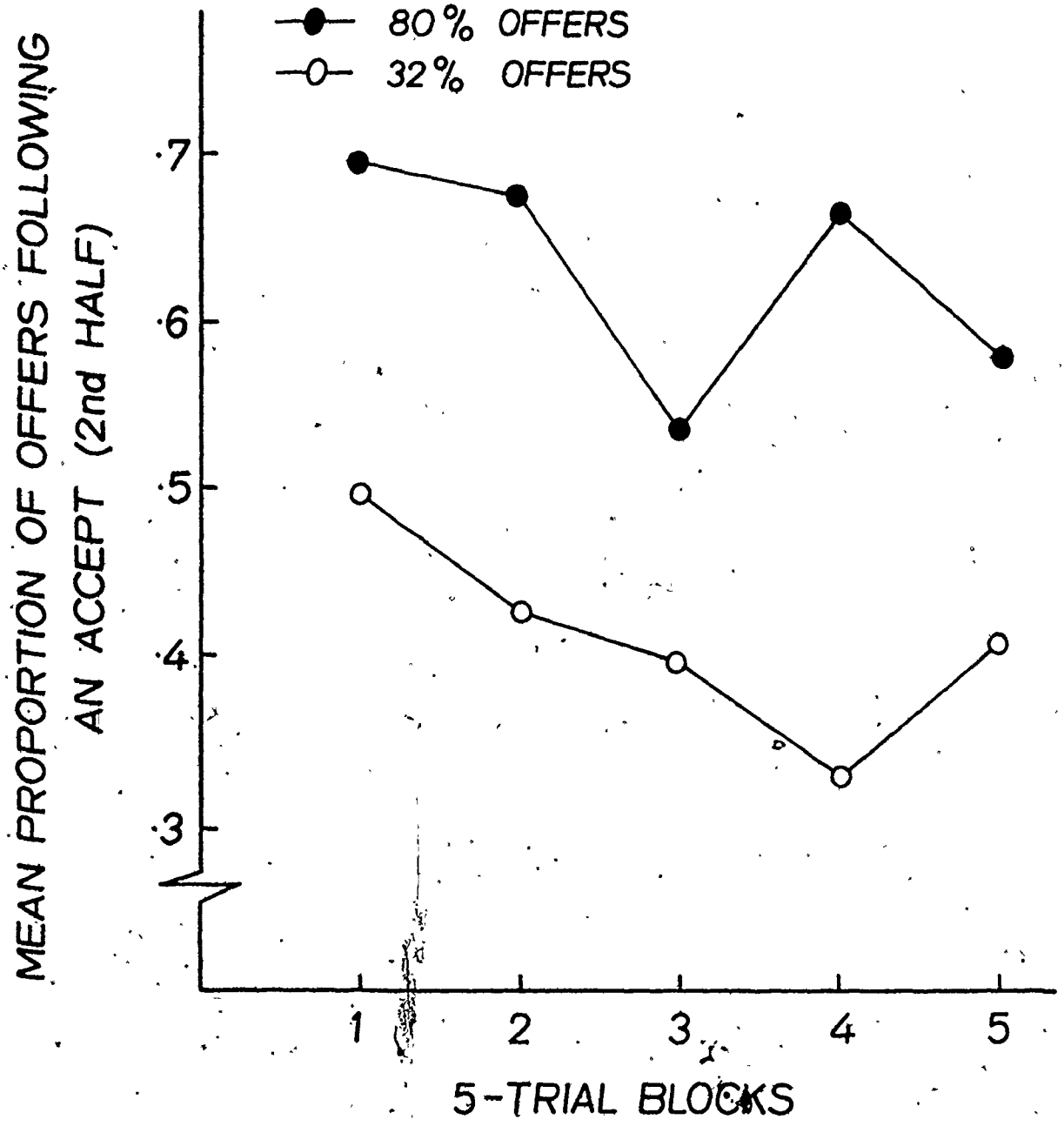


Figure V.3 (b). Trial Blocks x Amount of Help Interaction in the case of Offers following an Accept

Correlations computed between proportions in the prior and subsequent situation as a function of each independent variable are presented in Table V.5.

Insert Table V.5 about here

The positive correlations obtained here are indications that reciprocity occurred directly in the case of some choices. Further-inspection of the proportions revealed that the proportion of later Offer-related choices was, in general, lower than the proportion of Offers received previously, in the Large amount condition, and was higher than the proportion of Offers received earlier, in the case of the Small amount condition. In comparison to the results of Experiment IV, there was slightly more over-reciprocation in this study in the latter condition, while the under-reciprocation found in the preceding study in the Large amount condition recurred here.

Means and standard deviations in the case of each choice-measure along with summaries of analysis of variance, are presented in Tables V.6 to V.12.

Insert Table V.6 to Table V.12 about here

Discussion

Considered collectively, the results of this experiment can be taken as replications of many of the findings that appeared in the initial experiments in the present research using a choice-setting.

With respect to Stated intention which was the new variable in this experiment, recipients tended to make more Accept-related choices

Table V.5 Correlations between 1st Half and 2nd Half Proportions for each Variable

Choice measure		Stated intention		Amount of help given	
1st Half	2nd Half	Small amount stated	Large amount stated	Small amount given	Large amount given
Accepts	Offers	.042	.376	.101	.313
Accepts, given an Offer	Offers	.116	.271	.333	.309
Accepts following an Offer	Offers following an Accept	-.088	.318	-.066	.314
Accepts following an Offer-Accept	Offers following an Offer-Accept	-.138	.399	.097	.293
		Similar/Discrepant condition		Sex Composition	
		Similar	Discrepant	$M_d - M_r$	$F_d - F_r$
Accepts	Offers	.465 *	.184	.269	-.082
Accepts, given an Offer	Offers	.438	-.268	.147	-.369
Accepts following an Offer	Offers following an Accept	.388	-.151	.240	-.037
Accepts following an Offer-Accept	Offers following an Offer-Accept	.512 *	-.079	.268	.024

* $p < .05$

Table V.6 Proportion of Accepts: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
Trial Blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
					30%/32% Offers						
	$\bar{X}$:	.60	.76	.60	.76	.80	.64	.52	.52	.52	.60
(n=5)	SD:	.245	.329	.245	.167	.245	.261	.228	.268	.179	.141
					30%/80% Offers						
	$\bar{X}$:	.76	.68	.76	.80	.64	.60	.52	.44	.68	.52
(n=5)	SD:	.219	.268	.167	.245	.358	.141	.179	.297	.228	.415
					80%/80% Offers						
	$\bar{X}$:	.76	.80	.80	.80	.80	.80	.64	.76	.72	.76
(n=5)	SD:	.329	.346	.447	.447	.447	.245	.167	.167	.179	.329
					80%/32% Offers						
	$\bar{X}$:	.64	.88	.80	.76	.88	.56	.60	.56	.76	.68
(n=5)	SD:	.219	.109	.200	.261	.268	.167	.141	.089	.089	.228

continued.....

Table V.6 Proportion of Accepts: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.52	1	.52	2.524	n.s.
B (Amount given)	.045	1	.045		
C (Sex composition)	.898	1	.898	4.359	$p < .05$
AB	.024	1	.024		
AC	.034	1	.034		
BC	.016	1	.016		
ABC	.058	1	.058		
Error (between)	6.579	32	.206		
Within subjects		(160)			
D (Trial blocks)	.137	4	.034		
AD	.087	4	.022		
BD	.218	4	.055		
CD	.165	4	.041		
ABD	.083	4	.021		
ACD	.033	4	.008		
BCD	.051	4	.013		
ABCD	.157	4	.039		
Error (within)	4.221	128	.033		

Table V.7 Proportion of Accepts, given an Offer: Means and Standard Deviations

		$M_d - M_r$						$F_d - F_r$				
Trial blocks:		D_1	D_2	D_3	D_4	D_5		D_1	D_2	D_3	D_4	D_5
					30%/32% Offers							
	$\bar{X}$:	.80	.80	1.0	1.0	.90	$\bar{X}$:	.60	.60	.40	.40	.80
(n=5)	SD:	.274	.447	0	0	.224	SD:	.548	.418	.548	.548	.447
					30%/80% Offers							
	$\bar{X}$:	.85	.75	.80	.87	.64	$\bar{X}$:	.55	.55	.45	.67	.52
(n=5)	SD:	.137	.250	.274	.181	.358	SD:	.209	.274	.274	.237	.415
					80%/80% Offers							
	$\bar{X}$:	.80	.85	.80	.80	.80	$\bar{X}$:	.80	.70	.75	.80	.76
(n=5)	SD:	.326	.335	.447	.447	.447	SD:	.209	.274	.177	.181	.329
					80%/32% Offers							
	$\bar{X}$:	.90	1.0	1.0	.80	1.0	$\bar{X}$:	.80	.60	.80	1.0	.80
(n=5)	SD:	.224	0	0	.447	0	SD:	.274	.418	.447	0	.447

continued.....

Table V.7 Proportion of Accepts, given an Offer: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.856	1	.856	2.555	n.s.
B (Amount given)	.279	1	.279		
C (Sex composition)	1.813	1	1.813	5.412	$p < .04$
AB	.003	1	.003		
AC	.466	1	.466		
BC	.122	1	.122		
ABC	.002	1			
Error (between)	10.728	32	.335		
Within subjects		(160)			
D (Trial blocks)	.090	4	.023		
AD	.025	4	.025		
BD	.224	4	.056		
CD	.232	4	.058		
ABD	.137	4	.034		
ACD	.582	4	.146	2.808	$p < .05$
BCD	.055	4	.014		
ABCD	.311	4	.078		
Error (within)	6.634	128	.052		

Table V.8 Proportion of Accepts following an Offer: Means and Standard Deviations

		M_d - M_r					F_d - F_r				
		30%/32% Offers									
Trial Blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	0	.80	.40	.80	.80	.60	.60	.40	.60	.60
(n=5)	SD:	0	.447	.418	.447	.274	.547	.418	.224	.547	.224
		30%/80% Offers									
	$\bar{X}$:	.70	.65	.73	.80	.64	.60	.55	.53	.73	.52
(n=5)	SD:	.274	.285	.367	.299	.358	.137	.112	.381	.279	.415
		80%/80% Offers									
	$\bar{X}$:	.75	.80	.80	.80	.80	.70	.65	.73	.53	.76
(n=5)	SD:	.306	.326	.447	.447	.447	.326	.285	.279	.300	.329
		80%/32% Offers									
	$\bar{X}$:	.40	1.0	.80	.60	.80	.40	.60	.70	.40	.80
(n=5)	SD:	.548	0	.274	.547	.447	.548	.224	.274	.548	.274

continued.....

Table V.8 Proportion of Accepts following an Offer: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.389	1	.389	1.346	n.s.
B (Amount given)	.355	1	.355		
C (Sex composition)	.431	1	.431	1.491	n.s.
AB	.001	1	.001		
AC	.061	1	.061		
BC	.027	1	.027		
ABC	.061	1	.061		
Error (between)	9.277	32	.289		
Within subjects		(160)			
D (Trial blocks)	.992	4	.248	2.583	$p < .05$
AD	.851	4	.213	2.219	$p < .08$
BD	1.201	4	.300	3.125	$p < .01$
CD	.647	4	.162	1.688	n.s.
ABD	.169	4	.042		
ACD	.243	4	.061		
BCD	.423	4	.106		
ABCD	.284	4	.071		
Error (within)	12.322	128	.096		

Table V.9 Proportion of Accepts following an Offer-Accept: Means and Standard Deviations

		$M_d - M_r$						$F_d - F_r$				
		30%/32% Offers										
Trial blocks:		D_1	D_2	D_3	D_4	D_5		D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	0	.80	.50	.80	.70	$\bar{X}$:	.40	.30	.20	0	.60
(n=5)	SD:	0	.447	.500	.447	.447	SD:	.548	.447	.274	0	.418
		30%/80% Offers										
	$\bar{X}$:	.67	.55	.70	.73	.47	$\bar{X}$:	.47	.25	.30	.70	.50
(n=5)	SD:	.335	.389	.447	.434	.506	SD:	.275	.354	.447	.447	.500
		80%/80% Offers										
	$\bar{X}$:	.68	.75	.80	.80	.80	$\bar{X}$:	.67	.55	.63	.43	.70
(n=5)	SD:	.409	.433	.447	.447	.447	SD:	.408	.389	.415	.435	.411
		80%/32% Offers										
	$\bar{X}$:	.40	1.0	.70	.60	.80	$\bar{X}$:	.20	.60	.60	.40	.70
(n=5)	SD:	.548	0	.447	.548	.447	SD:	.447	.418	.418	.548	.447

continued.....

Table V.9 Proportion of Accepts following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	1.269	1	1.269	3.021	n.s.
B (Amount given)	.429	1	.429		
C (Sex composition)	2.046	1	2.046	4.871	$p < .05$
AB	.006	1	.006		
AC	.015	1	.015		
BC	.039	1	.039		
ABC	.008	1	.008		
Error (between)	13.455	32	.420		
Within subjects		(160)			
D (Trial blocks)	1.068	4	.267	2.225	n.s.
AD	.471	4	.118		
BD	1.835	4	.459	3.825	$p < .01$
CD	1.032	4	.258		
ABD	.180	4	.045		
ACD	.292	4	.073		
BCD	.421	4	.105		
ABCD	.930	4	.233		
Error (within)	15.402	128	.120		

Table V.10 Proportion of Offers: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
		30%/32% Offers									
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	.52	.60	.48	.52	.60	$\bar{X}$: .40	.32	.36	.12	.32
(n=5)	SD:	.179	.374	.335	.335	.245	SD: .141	.303	.219	.109	.389
		30%/80% Offers									
	$\bar{X}$:	.68	.72	.52	.80	.76	$\bar{X}$: .64	.68	.60	.68	.60
(n=5)	SD:	.335	.268	.228	.200	.167	SD: .219	.179	.245	.109	.249
		80%/80% Offers									
	$\bar{X}$:	.80	.80	.80	.84	.72	$\bar{X}$: .64	.60	.36	.48	.36
(n=5)	SD:	.346	.245	.346	.261	.228	SD: .358	.346	.329	.389	.358
		80%/32% Offers									
	$\bar{X}$:	.56	.40	.40	.40	.36	$\bar{X}$: .44	.32	.36	.24	.32
(n=5)	SD:	.297	.374	.400	.400	.385	SD: .219	.109	.167	.167	.268

continued.....

Table V.10 Proportion of Offers: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.065	1	.065		
B (Amount given)	3.175	1	3.175	10.079	$p < .005$
C (Sex composition)	1.479	1	1.479	4.695	$p < .05$
AB	.003	1	.003		
AC	.028	1	.028		
BC	.003	1	.003		
ABC	.501	1	.501		
Error (between)	10.077	32	.315		
Within subjects		(160)			
D (Trial blocks)	.267	4	.067	3.045	$p < .025$
AD	.171	4	.043		
BD	.281	4	.070		
CD	.153	4	.038		
ABD	.049	4	.012		
ACD	.104	4	.026		
BCD	.061	4	.015		
ABCD	.079	4	.019		
Error (within)	2.867	128	.022		

Table V.11 Proportion of Offers following an Accept: Means and Standard Deviations

		M_d					F_d				
		30%/32% Offers									
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	.55	.60	.48	.52	.60	.40	.36	.36	.16	.40
(n=5)	SD:	.274	.374	.335	.335	.245	.137	.297	.219	.089	.400
		30%/80% Offers									
	$\bar{X}$:	.64	.72	.52	.80	.76	.60	.68	.60	.68	.60
(n=5)	SD:	.351	.268	.228	.200	.167	.224	.179	.245	.109	.245
		80%/80% Offers									
	$\bar{X}$:	.85	.80	.80	.84	.72	.70	.52	.24	.36	.24
(n=5)	SD:	.335	.245	.346	.261	.228	.326	.335	.219	.261	.261
		80%/32% Offers									
	$\bar{X}$:	.55	.44	.40	.40	.36	.50	.32	.36	.24	.32
(n=5)	SD	.326	.358	.400	.400	.385	.177	.109	.167	.167	.268

continued.....

Table V.11 Proportion of Offers following an Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.143	1	.143		
B (Amount given)	2.365	1	2.365	9.536	$p < .01$
C (Sex composition)	1.720	1	1.72	6.935	$p < .01$
AB	0	1	0		
AC	.128	1	.128		
BC	.071	1	.071		
ABC	.749	1	.749	2.637	n.s.
Error (between)	9.107	32	.284		
Within subjects		(160)			
D (Trial blocks)	.424	4	.106	4.417	$p < .005$
AD	.415	4	.104	4.333	$p < .005$
BD	.258	4	.065	2.708	$p < .05$
CD	.188	4	.047		
ABD	.077	4	.019		
ACD	.109	4	.027		
BCD	.098	4	.025		
ABCD	.024	4	.006		
Error (within)	3.050	128	.024		

Table V.12 Proportion of Offers following an Offer-Accept: Means and Standard Deviations

		$M_d - M_r$						$F_d - F_r$				
					30%/32%	Offers						
Trial blocks:		D_1	D_2	D_3	D_4	D_5		D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	.50	.57	.37	.43	.53	$\bar{X}$:	.30	.15	.23	.10	.20
(n=5)	SD:	.500	.435	.415	.435	.362	SD:	.447	.335	.326	.224	.447
					30%/80%	Offers						
	$\bar{X}$:	.63	.57	.49	.68	.63	$\bar{X}$:	.50	.80	.60	.67	.50
(n=5)	SD:	.415	.435	.304	.337	.295	SD:	.354	.181	.281	.102	.373
					80%/80%	Offers						
	$\bar{X}$:	.80	.71	.75	.85	.72	$\bar{X}$:	.60	.55	.38	.40	.48
(n=5)	SD:	.447	.413	.433	.224	.415	SD:	.548	.326	.362	.418	.458
					80%/32%	Offers						
	$\bar{X}$:	.40	.50	.27	.47	.30	$\bar{X}$:	.23	.10	.23	.10	.20
(n=5)	SD:	.435	.5000	.434	.506	.447	SD:	.326	.224	.326	.224	.274

continued.....

Table V.12 Proportion of Offers following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Stated intention)	.002	1	.002		
B (Amount given)	4.707	1	4.707	9.626	$p < .005$
C (Sex composition)	1.829	1	1.829	3.740	$p < .06$
AB	.071	1	.071		
AC	.157	1	.157		
BC	.160	1	.160		
ABC	.422	1	.422		
Error (between)	15.64	32	.489		
Within subjects		(160)			
D (Trial blocks)	.180	4	.045		
AD	.037	4	.009		
BD	.078	4	.019		
CD	.176	4	.044		
ABD	.129	4	.032		
ACD	.165	4	.041		
BCD	.380	4	.095		
ABCD	.073	4	.018		
Error (within)	7.624	128	.059		

when the donor stated an intention to offer a large amount of help than when he/she stated an intention to offer a small amount of help. This was in line with expectations, and can be interpreted in terms of the recipients' anticipation that the intention will be carried out. Since the donor could choose between promising a large or small amount of help, an altruistic motive would likely be attributed to a donor who chooses to promise a large amount than to one who promises a small amount of help, especially since there is no opportunity for reciprocation (all subjects were unaware of a switch of roles). Recipients would thus be encouraged to accept more help from one who is truly helpful than from one who is somewhat reluctant to promise a large amount of help. A similar explanation is proposed in the case of greater acceptance in the Large amount condition than in the Small amount condition, as was suggested in Experiment IV. Once again, it must be mentioned that in the absence of supporting verbal responses that this was indeed the case, such an interpretation is tentative, but appears to be very likely.

Turning to subsequent Offer-related choices, it was found that a smaller proportion of Offer-related choices were made when the donor had promised a large amount of help than when he/she had promised a small amount of help. This result can be explained thus: since in the subsequent situation, the former recipients were able to evaluate the extent to which the donor had or had not carried out the stated intention, this factor alone did not affect choices in the same way that it had influenced the recipients' expectations in the prior situation. In other words, the subsequent Offer-related choices were necessarily a product of an interaction between Stated intention and Amount of help.

A careful examination of the mean proportions of Offer-related choices in the various experimental conditions demonstrates that when a large amount of help had been promised but the actual amount given was small (80% / 32% Offers condition), the proportion of Offer-related choices returned was drastically reduced in comparison to the other conditions. This difference might account for the lowering of the average proportion of Offer-related choices in the Large amount-stated condition to a level below that of the average in the Small amount-stated condition. In general, these findings are in accordance with the result reported by Kahn and Tice (1973) that stated intention per se does not significantly influence the amount of help reciprocated, but do not agree with Evans' (1964) finding that making a promise increases the level of prosocial choices relative to a condition in which no promise was made.

The effect of Amount of help actually given showed clear evidence of reciprocity (Gouldner, 1960) adding further to the consistency with which this result appeared in the preceding two experiments. Thus former recipients returned more help when they had been offered a large amount of help and they had accepted a large amount, than when they had been offered and had accepted a small amount of help. It is noteworthy that as in Experiment IV, the proportion of Offer-related choices in the Large amount condition showed under-reciprocation while that in the Small amount condition showed over-reciprocation. The former finding may be explained on the basis of a reaction to role-reversal, whereby the former recipient shifts from a more remunerative to a less remunerative position, and is in line with findings from some studies

that show less reciprocation by persons in a strong power position (e.g. Michener et al.,1975).

Another aspect of the results was the slight difference between Similar and Discrepant conditions. The observation was made that most Accept-related choices in the prior situation were in higher proportion in the Discrepant condition than in the Similar conditon, but subsequent Offer-related choices were in higher proportion in the Similar than in the Discrepant condition. This difference was,however, slight and unreliable, leading us to conclude that whether or not the donor actually acted on his/her stated intention did not significantly affect the recipients' acceptance of and later reciprocation of help. This is not surprising in the light of findings reported by Tedeschi, Powell, Lindskold and Gallagan (1969) and Lindskold and Tedeschi(1969) which indicated that a promisor's or threatener's credibility alone did not affect the other person's choices.

Sex differences obtained in this study confirmed those in the previous experiment, namely, that males made both more Accept-related and subsequent Offer-related choices than females. As pointed out several times in the previous pages, this finding is inconsistent with observations and empirical evidence showing that females are more dependent, submissive and help-seeking than males, and in a power-setting, are less likely to use coercive power directly(Johnson,1976) compared to males. It is proposed here that the obtained difference may be due to female recipients' concern with appearing good rather than maximizing their possible rewards. This suggestion can be reconciled

with findings that show a greater sensitivity to social aspects than to strategy considerations in a choice setting. The higher proportion of Offer-related choices among males than among females in the subsequent situation is in agreement with findings from some studies of mixed-motive games that show greater competitiveness among females than among males. In the present context, it is suggested that these subsequent choices by both males and females can be explained on the basis of reciprocity and equity (Gouldner,1960; Homans, 1961; Adams,1965).

The few interactions obtained between trial blocks and other factors are indices of the fact that recipients were varying their choices over trials possibly in response to their judgment of whether or not the donor was acting according to his/her stated intention. It may be recalled that all interactions involved either Stated intention or Amount of help given.

In all, the initial question as to whether or not a statement of intention by the donor might change the effects of actual amount of help can be replied to by saying that while the recipients' choices are affected to some extent by the amount stated in an intention by the donor, acceptance of help and later reciprocation is unquestionably influenced more by the actual amount of help given than by stated intention alone. It should be added,though, that in this experiment, recipients were not informed about a later opportunity for returning the favour. Moreover, the donor had stated an intention to give a small or large amount of help regardless of the other person's intended or actual choices. It is conceivable that stating an intention to give

a specific amount of help along with a condition related to expected reciprocation by the recipient, might affect the latter's reactions, in a way different from that observed in this experiment. The next study, which was the final experiment in the present series using the Altruism matrix, was addressed to this issue.

EXPERIMENT VI

The Effect of Conditionally/ Unconditionally Stated Intention and Amount of help given on the Recipient's Reactions

No direct experimental evidence on the effects of a conditional or unconditional statement of intention is available, but there are other experimental findings that are relevant to this issue. To the extent that a stated intention is a form of communication, an unconditionally stated intention would constitute a unilateral or less complete form of communication than a conditionally stated intention. Loomis' (1959) study cited earlier showed that perceived trust of the sender of a message increased from the level of statement of a mere expectation to the level of 'absolution' which involved a conditional statement, and this increased the level of cooperation in the situation. In addition, a conditional statement may be perceived as a promise, or as a threat that the intention will not be carried out unless the other person fulfils the stated condition. That the rate of carrying out a threat affects cooperative choices in a mixed-motive game setting is shown in an experiment by Horai, Tedeschi, Gahagan and Lesnick (1969), while an earlier study by Radlow and Weidner (1966) reports that the

joint presence of a promise and a threat affects cooperation. In short, if a conditional statement is perceived as a promise and/or as a threat, the behaviour of the recipient of the statement would be affected in some way.

Another concurrent effect of making a conditional statement is the possible arousal of psychological reactance (Brehm, 1966; Wicklund, 1974). Several studies have been cited in the previous chapters that show that a perceived restriction of freedom leads to an attempt to restore or maintain this freedom, which often takes the form of engaging in behaviour that is opposite to expected action. Specifically in the context of helping, while there is no information on choice-settings, a number of experiments indicate that the recipient returns less help under reactance than in the absence of reactance (e.g. Brehm and Cole, 1966; Nemeth, 1970b; Goodstadt, 1971; Worchel, Andreoli and Archer, 1976).

In view of these possible effects of a conditional statement of intention, the following questions were raised in the present study: If a donor states an intention to offer a small or large amount of help conditionally or unconditionally, would the recipient accept more help in the former situation or in the latter situation ? Subsequently, would the former recipient return more help when the donor had made a conditional statement, or when he/she had made an unconditional statement of intention ?

Design

This experiment included the following independent variables: conditional/ unconditional statement of intention; small or large amount of help (32% Offers/ 80% Offers); sex composition (male donor-male recipient/ female donor-female recipient dyads); and trial blocks. As in Experiment V, this study had a 2 (Conditional/Unconditional statement) x 2(Amount of help given) x 2(Sex composition) x 5(Trial blocks) factorial design.

The dependent variables were identical to those investigated in Experiments IV and V. An additional measure was the recipient's initial response to the donor's conditional or unconditional statement of intention.

Expected outcomes

With respect to a conditional or unconditional statement of intention, it was expected that the proportion of Accept-related choices in the prior situation, and that of Offer-related choices in the subsequent situation, would be higher in the 'Unconditional' situation than in the 'Conditional' situation, the amount of help stated and given remaining the same in both situations. This expectation is based on the idea of reactance. A conditional statement is likely to threaten the recipient's freedom by making him/her feel compelled to agree to the condition. This would lead to a lower level of Accept-related choices in the Conditional than in the Unconditional situation, and consequently, to less reciprocation subsequently in the former than in the latter experimental condition.

With respect to the Amount of help, the proportion of Accept-related choices in the prior situation and subsequent Offer-related choices is expected to be higher when a Large amount of help is offered than when a Small amount of help is offered. This prediction is based on the findings of Experiments IV and V.

Subjects: Forty undergraduates (20 males and 20 females) enrolled in the first and second years at McMaster University participated in this study. The confederates were the same persons as in Experiment V. Subjects were recruited as in previous experiments.

Procedure

The main differences between the procedure of this experiment and that of the preceding study were:

1) All subjects in this experiment were informed of a subsequent change of roles (i.e. about an opportunity for reciprocation).
2) The statement of intention included all alternatives involving both a conditional and unconditional statement, and a small and large amount of help.
3) Following the statement of intention manipulation, subjects were asked to reply to the donor's message.
4) In all conditions, the donor actually carried out the stated intention.

Manipulations: After the confederate (C) and subject (S) had read the instructions and had two practice trials, they were informed about a switch of roles midway through the experiment, as in earlier stuides

(Information condition).

The Stated intention manipulation was introduced in the same manner as in Experiment V (p. 166). However, the message sheets used in this experiment were different. Yellow was asked to check one of the following four messages:

a) I intend to choose the (10,1 and 1,1) column on about 80% of the first 25 trials.

b) I intend to choose the (10,1 and 1,1) column on about 80% of the first 25 trials, IF you agree to do the same after we change places.

c) I intend to choose the (10,1 and 1,1) column on about 30% of the first 25 trials.

d) I intend to choose the (10,1 and 1,1) column on about 30% of the first 25 trials, IF you agree to do the same after we change places.

Alternatives a) and c) represent the Unconditional statement while alternatives b) and d) represent the Conditional statement of intention. Yellow chose the alternative appropriate to the experimental condition, which was conveyed to him/her on a slip of paper, unknown to S. After Yellow had selected an alternative, the message sheet was handed over to Red, who was then asked to reply by choosing one of the following three alternatives:

1. I agree to choose the (10,1 and 1,1) column on about 80% of the trials after we change places.

2. I agree to choose the (10,1 and 1,1) column on about 30% of the trials after we change places.

3. I cannot agree to make any definite choices after we change places.

The third alternative was obviously a neutral reply expressing the absence of any commitment by the recipient. After S had chosen a reply, the message sheet was handed to Yellow and the experiment was commenced. It should be mentioned that in order to control for the effect of sequence, the alternatives on both Yellow's and Red's message sheet were presented in random order.

In all other respects, the procedure was identical to that in Experiment III, IV and V.

Results

An inspection of the replies given by recipients to the donor's statement of intention showed that in the Unconditional-30% Offers condition, 6 Ss chose 30%, 2 chose 80% and 2 chose the neutral alternative. In the Conditional-30% Offers condition, 9 chose 30% and 1 chose 80%. In the Unconditional-80% Offers condition, 7 chose 80%, 2 chose 30% and 1 chose the neutral alternative. In the Conditional-80% Offers condition, all chose 80%. Thus a reciprocal reply was the most likely among the available alternatives. Comparing the four conditions, such a reply was least likely in the Unconditional-30% Offers condition, and was most likely in the Conditional-80% Offers.

Results of analyses of variance in the different choice-measures were as follows.

Conditional/Unconditional statement of intention

An inspection of the mean proportions of the choice-measures under these two conditions showed some surprising results. The proportion

of Accept-related choices was higher under Conditional statement than under Unconditional statement, but this direction was reversed in the case of subsequent Offer-related choices. Table VI.1 provides information on the mean proportions under Conditional and Unconditional statement.

Insert Table VI.1 about here

Amount of help given

A significant main effect of this variable was found in the case of all choice-measures except that of Accepts, given an Offer. Adding further to the consistent finding in the previous experiments the proportion of Accept-related choices in the prior situation and Offer-related choices in the subsequent situation was found to be higher when the amount of help given was large than when it was small. Mean proportions in the various conditions are presented in Table VI.2.

Insert Table VI.2 about here

Sex composition

In the case of this variable also, the results of the preceding two experiments were replicated, although sex differences reached statistical significance only in the case of Offers, and Offers following an Accept. As before, the proportion of all choice-measures was higher among male dyads than among female dyads, with the sole exception of the proportion of Accepts, given an Offer, which was higher among females than among males. These proportions of choices are given in Table VI.3.

Table VI.1 Average Proportion of Choices under Unconditional/ Conditional Statement of Intention

Choice measure	Statement / Amount given: Uncondi-tional/ 32% Offers	Uncondi-tional/ 80% Offers	Condi-tional/ 32% Offers	Condi-tional/ 80% Offers
Accepts	68.4 %	82.4 %	72.0 %	86.0 %
Accepts, given an Offer	93.0 %	90.3 %	81.0 %	93.7 %
Accepts following an Offer	60.0 %	80.7 %	75.0 %	86.0 %
Accepts following an Offer-Accept	58.0 %	75.9 %	64.0 %	83.5 %
Offers	40.8 %	80.4 %	39.6 %	80.0 %
Offers following an Accept	40.8 %	76.7 %	39.3 %	79.5 %
Offers following an Offer-Accept	28.7 %	77.8 %	26.6 %	77.6 %

	Unconditional Statement	Conditional Statement
Accepts	75.4 %	79.0 %
Accepts, given an Offer	91.7 %	87.4 %
Accepts following an Offer	71.2 %	80.5 %
Accepts following an Offer-Accept	66.9 %	73.8 %
Offers	60.6 %	55.0 %
Offers following an Accept	58.8 %	59.4 %
Offers following an Offer-Accept	53.3 %	46.6 %

Table VI.2 Average Proportion of Choices in the Small Amount/ Large Amount Conditions

Choice measure	Small Amount (32% Offers)	Large Amount (80% Offers)
Accepts	70.2 %	84.2 %
Accepts, given an Offer	87.0 %	92.0 %
Accepts following an Offer	67.5 %	83.4 %
Accepts following an Offer-Accept	61.0 %	79.7 %
Offers	40.2 %	80.2 %
Offers following an Accept	40.1 %	78.1 %
Offers following an Offer-Accept	27.7 %	77.7 %

Table VI.3 Sex Differences in Average Proportion of Choices

Choice measure	Sex Composition	
	$M_d - M_r$	$F_d - F_r$
Accepts	79.8 %	74.6 %
Accepts, given an Offer	87.9 %	91.2 %
Accepts following an Offer	79.6 %	71.3 %
Accepts following an Offer-Accept	73.7 %	67.1 %
Offers	65.4 %	55.0 %
Offers following an Accept	65.1 %	53.1 %
Offers following an Offer-Accept	58.5 %	46.6 %

Insert Table VI.3 about here

In the case of Offers in the subsequent situation, a marginally significant interaction between Amount of help and Sex composition was obtained, showing that while the proportion was lower among females than among males in most of the experimental conditions, in the Unconditional-80% Offers situation, the proportion was higher among females. In other words, females returned a larger proportion of Offers than males when the donor had stated an unconditional intention to give a large amount of help, and had actually given a large amount of help.

Trial blocks

The proportion of Offers following an Accept was found to vary over trial blocks, decreasing sharply from the first to the second block and then increasing thereafter. Also, a marginally significant effect of Trial blocks was found in the case of Accepts. In the case of all other measures, variations over time were no better than chance variations.

Correlations

Correlations between 1st half proportions and 2nd half proportions were computed for all choice-measure separately under each factor and also overall. As indicated by Table VI.4, correlations ignoring the experimental condition were all positive and significant. Within each independent variable also, most of the correlations were positive and significant. There was thus an unequivocal demonstration of reciprocity

Table VI.4 Correlations between 1st half and 2nd half Proportions for each Variable

Choice measure		(n = 40) Overall	Statement of Intention Unconditional	Statement of Intention Conditional
1st Half	2nd Half			
Accepts	Offers	.740 **	.713 **	.696 **
Accepts, given an Offer	Offers	.376 *	.282	.470
Accepts following an Offer	Offers following an Accept	.543 **	.588 **	.503 *
Accepts following an Offer- Accept	Offers following an Offer-Accept	.552 **	.524 *	.612 **

		Amount of help given		Sex Composition	
		Small	Large	$M_d - M_r$	$F_d - F_r$
Accepts	Offers	.626 **	.736 **	.718 **	.673 **
Accepts, given an Offer	Offers	.312	.721 **	.538 *	.231
Accepts following an Offer	Offers following an Accept	.395	.642 **	.564 **	.510 *
Accepts following an Offer-Accept	Offers following an Offer-Accept	.524 *	.612 **	.712 **	.418

* $p < .05$ ** $p < .01$

Table VI.5 Proportions of Accepts: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
		Unconditional, 32% Offers									
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	.76	.76	.68	.72	.68	.72	.72	.60	.60	.60
(n=5)	SD:	.261	.261	.303	.228	.228	.303	.268	.283	.316	.316
		Conditional, 32% Offers									
	$\bar{X}$:	.72	.80	.84	.80	.92	.64	.60	.52	.68	.64
(n=5)	SD:	.335	.245	.167	.283	.179	.167	0	.179	.303	.167
		Unconditional, 80% Offers									
	$\bar{X}$:	.84	.88	.84	.60	.84	.92	.84	.88	.72	.96
(n=5)	SD:	.261	.179	.261	.245	.261	.109	.089	.179	.228	.089
		Conditional, 80% Offers									
	$\bar{X}$:	.80	.80	.96	.88	1.0	.92	.88	.80	.76	.88
(n=5)	SD:	.141	.141	.089	.179	0	.179	.109	.245	.167	.268

continued....

Table VI.5 Proportion of Accepts: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Unconditional/ Conditional statement)	.058	1	.058		
B (Amount given)	1.125	1	1.125	6.944	$p < .025$
C (Sex composition)	.192	1	.192		
AB	0	1	0		
AC	.168	1	.168		
BC	.274	1	.274		
ABC	.002	1	.002		
Error (between)	5.192	32	.162		
Within subjects		(160)			
D (Trial blocks)	.202	4	.051	2.429	$p < .06$
AD	.201	4	.050		
BD	.198	4	.049		
CD	.123	4	.031		
ABD	.047	4	.012		
ACD	.111	4	.028		
BCD	.005	4	.001		
ABCD	.089	4	.022		
Error (within)	2.648	128	.021		

Table VI.6 Proportion of Accepts, given an Offer: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
Unconditional, 32% Offers											
	$\bar{X}$:	1.0	.90	.80	1.0	.90	.90	.90	1.0	1.0	.90
(n=5)	SD:	0	.224	.447	0	.224	.224	.224	0	0	.224
Conditional, 32% Offers											
	$\bar{X}$:	.80	.90	.60	.80	.90	.90	.70	.80	.80	.90
(n=5)	SD:	.447	.224	.548	.447	.224	.224	.274	.447	.447	.224
Unconditional, 80% Offers											
	$\bar{X}$:	.85	.85	.85	.80	.84	1.0	1.0	.95	.93	.96
(n=5)	SD:	.224	.224	.224	.299	.261	0	0	.112	.148	.089
Conditional, 80% Offers											
	$\bar{X}$:	.90	.95	1.0	.93	1.0	.95	.95	.90	.87	.92
(n=5)	SD:	.137	.112	0	.148	0	.112	.112	.224	.181	.179

continued.....

Table VI.6 Proportion of Accepts, given an Offer: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F
Total				
Between subjects				
A (Unconditional/ Conditional Statement)	.093	1	.093	
B (Amount given)	.126	1	.126	
C (Sex composition)	.054	1	.054	
AB	.296	1	.296	
AC	.090	1	.090	
BC	.009	1	.009	
ABC	.090	1	.090	
Error (between)	6.618	32	.207	
Within subjects		(160)		
D (Trial blocks)	.070	4	.018	
AD	.081	4	.020	
BD	.125	4	.031	
CD	.077	4	.019	
ABD	.069	4	.017	
ACD	.067	4	.017	
BCD	.196	4	.049	
ABCD	.044	4	.011	
Error (within)	2.856	128	.022	

Table VI.7 Proportion of Accepts following an Offer: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
Unconditional, 32% Offers											
	$\bar{X}$:	.60	.80	.60	.60	.70	.60	.60	.60	.40	.50
(n=5)	SD:	.548	.274	.418	.548	.274	.548	.418	.418	.548	.354
Conditional, 32% Offers											
	$\bar{X}$:	.60	.90	.90	1.0	.90	.80	.70	.50	.60	.60
(n=5)	SD:	.548	.224	.224	0	.224	.447	.274	.354	.548	.224
Unconditional, 80% Offers											
	$\bar{X}$:	.80	.85	.93	.53	.84	.90	.80	.93	.53	.96
(n=5)	SD:	.326	.224	.148	.300	.261	.137	.112	.148	.381	.089
Conditional, 80% Offers											
	$\bar{X}$:	.75	.75	1.0	.87	1.0	.90	.85	.87	.73	.88
(n=5)	SD:	.177	.177	0	.181	0	.224	.137	.299	.279	.268

continued.....

Table VI.7 Proportion of Accepts following an Offer: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Unconditional/ Conditional statement)	.507	1	.507	2.028	n.s.
B (Amount given)	1.266	1	1.266	5.064	$p < .01$
C (Sex composition)	.347	1	.347		
AB	.121	1	.121		
AC	.082	1	.082		
BC	.376	1	.376		
ABC	.005	1	.005		
Error (between)	8.003	32	.250		
Within subjects		(160)			
D (Trial blocks)	.531	4	.133		
AD	.443	4	.111		
BD	.532	4	.133		
CD	.526	4	.132		
ABD	.015	4	.004		
ACD	.292	4	.073		
BCD	.089	4	.023		
ABCD	.082	4	.021		
Error (within)	8.584	128	.067		

Table VI.8 Proportion of Accepts following an Offer-Accept: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
Unconditional, 32% Offers											
	$\bar{X}$:	.60	.70	.60	.60	.60	.60	.60	.50	.40	.60
(n=5)	SD:	.548	.447	.418	.548	.418	.548	.418	.500	.548	.418
Conditional, 32% Offers											
	$\bar{X}$:	.60	.80	.80	.80	.80	.80	.40	.50	.40	.50
(n=5)	SD:	.548	.447	.447	.447	.447	.447	.418	.500	.548	.354
Unconditional, 80% Offers											
	$\bar{X}$:	.73	.73	.70	.53	.82	.90	.80	.90	.53	.95
(n=5)	SD:	.434	.434	.447	.448	.292	.137	.112	.224	.381	.112
Conditional, 80% Offers											
	$\bar{X}$:	.77	.72	1.0	.83	1.0	.87	.83	.80	.73	.80
(n=5)	SD:	.136	.241	0	.235	0	.299	.155	.447	.279	.447

continued.....

Table VI.8 Proportion of Accepts following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Unconditional/ Conditional statement)	.228	1	.228		
B (Amount given)	1.760	1	1.760	4.200	$p < .05$
C (Sex composition)	.216	1	.216		
AB	.003	1	.003		
AC	.342	1	.342		
BC	.444	1	.444		
ABC	0	1	0		
Error (between)	13.415	32	.419		
Within subjects		(160)			
D (Trial blocks)	.569	4	.142		
AD	.221	4	.055		
BD	.185	4	.046		
CD	.470	4	.118		
ABD	.090	4	.023		
ACD	.240	4	.060		
BCD	.142	4	.036		
ABCD	.155	4	.039		
Error (within)	11.893	128	.093		

Table VI.9 Proportion of Offers: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
					Unconditional,32% Offers						
	$\bar{X}$:	.48	.64	.44	.48	.48	$\bar{X}$: .36	.20	.32	.24	.44
(n=5)	SD:	.389	.261	.358	.389	.415	SD: .167	.245	.179	.167	.329
					Conditional,32% Offers						
	$\bar{X}$:	.68	.48	.36	.60	.32	$\bar{X}$: .40	.32	.24	.24	.32
(n=5)	SD:	.268	.335	.261	.316	.363	SD: .141	.109	.089	.089	.109
					Unconditional,80% Offers						
	$\bar{X}$:	.84	.68	.92	.76	.76	$\bar{X}$: .92	.88	.80	.80	.68
(n=5)	SD:	.167	.303	.179	.261	.329	SD: .109	.109	.141	.141	.303
					Conditional,80% Offers						
	$\bar{X}$:	.96	.60	.80	.96	.84	$\bar{X}$: .84	.68	.80	.72	.80
(n=5)	SD:	.089	.400	.200	.089	.261	SD: .089	.179	.245	.179	.141

continued.....

Table VI.9 Proportion of Offers: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Unconditional/ Conditional statement)	0	1	0		
B (Amount given)	8.00	1	8.00	82.474	$p < .001$
C (Sex composition)	.54	1	.540	5.567	$p < .025$
AB	.005	1	.005		
AC	.025	1	.025		
BC	.354	1	.354	3.649	$p < .07$
ABC	.026	1	.026		
Error (between)	3.114	32	.097		
Within subjects		(160)			
D (Trial blocks)	.380	4	.095		
AD	.200	4	.050		
BD	.190	4	.048		
CD	.140	4	.035		
ABD	.205	4	.051		
ACD	.187	4	.047		
BCD	.326	4	.082		
ABCD	.092	4	.023		
Error (within)	6.456	128	.050		

Table VI.10 Proportion of Offers following an Accept: Means and Standard Deviations

		$M_d - M_r$					$F_d - F_r$				
		Unconditional,32% Offers									
Trial blocks:		D_1	D_2	D_3	D_4	D_5	D_1	D_2	D_3	D_4	D_5
	$\bar{X}$:	.45	.64	.44	.48	.48	$\bar{X}$: .35	.20	.32	.24	.48
(n=5)	SD:	.411	.261	.358	.389	.415	SD: .137	.245	.179	.167	.335
		Conditional,32% Offers									
	$\bar{X}$:	.65	.48	.36	.60	.32	$\bar{X}$: .40	.32	.24	.24	.32
(n=5)	SD:	.285	.335	.261	.316	.363	SD: .137	.109	.089	.089	.109
		Unconditional,80% Offers									
	$\bar{X}$:	.85	.68	.92	.76	.76	$\bar{X}$: .90	.72	.72	.72	.64
(n=5)	SD:	.137	.303	.179	.261	.329	SD: .137	.303	.228	.228	.329
		Conditional,80% Offers									
	$\bar{X}$:	.95	.60	.80	.96	.84	$\bar{X}$: .80	.68	.80	.72	.80
(n=5)	SD:	.112	.400	.200	.089	.261	SD: .112	.179	.245	.179	.141

continued....

Table VI.10 Proportion of Offers following an Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total		199			
Between subjects		(39)			
A (Unconditional/ Conditional statement)	.002	1	.002		
B (Amount given)	7.239	1	7.239	38.10	$p < .001$
C (Sex composition)	.726	1	.726	3.821	$p < .05$
AB	.023	1	.023		
AC	.001	1	.001		
BC	.171	1	.171		
ABC	.001	1	.001		
Error (between)	6.095	32	.190		
Within subjects		(160)			
D (Trial blocks)	.361	4	.090	2.727	$p < .05$
AD	.146	4	.037		
BD	.244	4	.061		
CD	.165	4	.041		
ABD	.229	4	.057		
ACD	.233	4	.058		
BCD	.273	4	.068		
ABCD	.072	4	.018		
Error (within)	4.217	128	.033		

Table VI.11 Proportion of Offers following an Offer-Accept: Means and Standard Deviations

Trial blocks:		$M_d - M_r$ D_1	D_2	D_3	D_4	D_5		$F_d - F_r$ D_1	D_2	D_3	D_4	D_5
						Unconditional,32% Offers						
	$\bar{X}$:	.33	.45	.27	.35	.40	$\bar{X}$:	.13	.07	.30	.30	.27
(n=5)	SD:	.472	.447	.434	.487	.548	SD:	.299	.148	.447	.447	.434
						Conditional,32% Offers						
	$\bar{X}$:	.48	.43	.35	.55	.25	$\bar{X}$:	.30	0	.20	.10	0
(n=5)	SD:	.458	.438	.335	.371	.354	SD:	.447	0	.447	.224	0
						Unconditional,80% Offers						
	$\bar{X}$:	.77	.70	.90	.75	.71	$\bar{X}$:	.87	.85	.78	.78	.67
(n=5)	SD:	.223	.299	.224	.277	.413	SD:	.181	.137	.126	.126	.258
						Conditional,80% Offers						
	$\bar{X}$:	.93	.51	.80	.96	.87	$\bar{X}$:	.75	.70	.83	.64	.77
(n=5)	SD:	.148	.475	.299	.089	.181	SD:	.143	.241	.155	.380	.136

continued.....

Table VI.11 Proportion of Offers following an Offer-Accept: Summary of Analysis of Variance

Source of variation	SS	Df	MS	F	
Total					
Between subjects					
A (Unconditional/ Conditional statement)	.005	1	.005		
B (Amount given)	12.540	1	12.540	43.391	$p < .001$
C (Sex composition)	.751	1	.751	2.599	n.s.
AB	.005	1	.005		
AC	.191	1	.191		
BC	.477	1	.477		
ABC	.005	1	.005		
Error (between)	9.264	32	.289		
Within subjects		(160)			
D (Trial blocks)	.352	4	.088		
AD	.211	4	.053		
BD	.074	4	.019		
CD	.109	4	.027		
ABD	.370	4	.093		
ACD	.223	4	.056		
BCD	.484	4	.121		
ABCD	.130	4	.033		
Error (within)	7.951	128	.062		

in this experiment.

Insert Table VI.4 about here

Further details of the results of analyses of variance in the case of each choice-measure are provided in Table VI.5 to Table VI.11.

Insert Table VI.5 to Table VI.11 about here

Discussion

A conditional or unconditional statement of intention was introduced into this experiment on the rationale that a mere statement of intention might not affect the recipient's reactions to help to the same extent as a statement that also attaches a condition to it. While the results did not bear out this expectation at a statistically reliable level, the consistent differences that emerged were in a direction opposite to that expected. More Accept-related choices were made under Conditional than under Unconditional statement of intention, but more Offer-related choices were made subsequently in the Unconditional situation than under Conditional statement , the latter being in the predicted direction. Apparently, the imposition of a condition on the intended offer of help was not considered restrictive or threatening by the recipient in the prior situation. Instead, from some responses to a relevant question in the post-experimental interview by subjects, a conditional statement was thought to be more fair than an unconditional statement. This, however, does not explain why fewer Offer-related choices were made under Conditional statement after a switch of roles.

The chance-level difference between the Conditional and Unconditional Statement situations might be due to the fact that the nature of the statement was not as salient as the amount of help mentioned therein. When subjects were specifically questioned about this aspect of the stated intention, it appeared from their responses that although most of them had noticed the two types of statements, their choices were not directly affected by the kind of statement actually made by the donor. In general, then, the expected reactance effects of attaching a condition to an intention did not appear in this experiment. The findings also differed from those by Loomis (1959) in that a conditional statement, despite being a more complete form of communication, induced about the same level of prosocial choices as an unconditional statement of intention.

A very clear operation of the reciprocity norm was shown here by way of significant correlations between 1st half- and 2nd-half proportions of choices. This finding was different from that in the previous experiments, in which only some of the correlations were found to be significant. Here, the presence of complete information about the situation, namely, information about a later opportunity to return the favour, about what the donor intended to do, and about what the donor expected of the recipient (as implied by the conditional or unconditional statement), might have led to the occurrence of direct reciprocity.

In the case of amount of help and sex composition, further corroboration was obtained in this experiment for the effects observed in the preceding studies. The main effect of the Amount of help factor

was significant in the case of all choice-measures except that of Accepts given an Offer.

SUMMARY AND CONCLUSIONS

Both of the experiments described in this chapter investigated effects of a stated intention by the donor to give a certain amount of help, on the recipient's reactions. In the first experiment, the donor stated an intention to give a small or large amount of help and actually did or did not carry out the stated intention. In the second experiment, the donor stated a similar intention with or without a condition pertaining to the return of a specified amount of help on a subsequent occasion. The donor always carried out the stated intention. In both studies, it was found that the statement of intention, whether it was honoured or not, whether it was stated conditionally or unconditionally, was a less potent determinant of the recipients' prior acceptance and subsequent helping than the amount of help actually given. It will be recalled that in the first of the two studies, recipients were not informed about a later opportunity for reciprocation, while in the second study all recipients were aware of such an opportunity. This factor, however, did not detract from the effect of the Amount of help. Recipients made more Accept-related choices, and returned more help subsequently, when the donor offered a large amount of help than when he/she offered a small amount of help. A tentative explanation for this finding was that a truly helpful motive was attributed to the donor by the recipient in the Large amount condition rather than in the Small amount condition, thus leading to acceptance of more help in the former than in the latter condition.

Subsequently, help was given in accordance with the amount accepted in the prior situation, namely, in greater proportion in the Large amount than in the Small amount condition.

In both studies, sex differences were in the same direction. Males made both more Accept-related and Offer-related choices than females. The difference in the case of prior acceptance of help was explained by suggesting that females were more concerned about appearing good and not taking too many of the rewards offered by the donor, while males were optimizing their gains when possible. In the subsequent situation, both males and females acted in accordance with reciprocity and equity.

With reference to reciprocity, while the above results imply that recipients returned the favour they had accepted in a very general way, direct and explicit reciprocity was found to occur in the case of the second study reported in this chapter. Regardless of experimental condition and sex composition, recipients who made a high proportion of Accept-related choices in the prior situation made a high proportion of Offer-related choices in the subsequent situation, while those who made a small proportion of Accept-related choices in the prior situation, made a small proportion of Offer-related choices in the subsequent situation. The availability of information on several aspects of the situation (namely, information about a later opportunity to return the favour, information about the donor's intention, and expectation, in addition to information about the donor's exact choice on each trial) is proposed as a reason for the emergence of the reciprocity effect more clearly in this study than in most of the previous studies except the very first one

using a simultaneous choice-setting.

Questionnaire measures in both experiments showed that the manipulation of the independent variables was successful, and that recipients' responses were similar between the experimental conditions.

A more definite conclusion on the two studies related to the statement of intention might necessitate an experiment using the same setting, and replicating Experiment V including an 'Information' condition.

CHAPTER SEVEN

THE RECIPIENT'S REACTIONS TO HELP: GENERAL DISCUSSION AND CONCLUSIONS

The present research arose out of a paucity of systematic research concerning the recipient of aid. The introductory chapter pointed out some possible reasons for the neglect of the recipient relative to the donor of help, and also discussed why it is necessary to study the recipient. The more commonly observed recipient reactions were described, among which reciprocity figured prominently in experimental studies of the recipient. A review of recipient literature showed clearly the necessity for research in the case of certain classes of variables, from which a number of situational factors were selected for investigation in the present research. There were: communication of need for help; information about the presentation of an opportunity for reciprocation; amount of help given to the recipient; stating and carrying out an intention to give a specific amount of help; unconditional or conditional statement of such an intention; and sex differences.

The findings from the six experiments designed to examine these variables and reported in this dissertation enable us to make a number of general statements about recipient reactions to aid of the kind studied in the experimental settings employed in this research. It should be understood that these statements are meant to apply to situations that have the same basic characteristics as those of the task-

performance and choice setting used in these experiments. These were discussed in the appropriate context (Chapters III and IV), but may be briefly summarized again.

In the task-performance setting, the donor and recipient exchanged an abstract resource (expertise and time) while working on structured tasks having a specified goal. The resource was exchanged only once on each task, or not at all, with no gradations between these two extremes and face-to-face communication was possible. In the choice-setting used in most of the subsequent experiments, the donor and recipient, while making choices, exchanged a more concrete resource (points that were worth some money). The recipient could choose between accepting and refusing a generous or non-generous choice made by the donor. The resource was exchanged on a number of occasions (trials), and there were gradations in the amount of help given by the donor. Face-to-face communication was not allowed, although some form of communication was bound to take place through the choices themselves. In both settings, the cost of helping incurred by the donor was relatively low compared to the reward accruing to the recipient. The recipient 'needed' the resource only to the extent that it would enable him to attain the goal more efficiently.

The findings from the experiments show clearly that in general, the recipient responds to help in accordance with the reciprocity norm (Gouldner, 1960). Persons who receive prior help on a task are significantly more likely to give later help than are those who have not received prior help (Experiment I). An alternative interpretation of

this effect attributes it to modeling by the former donor or by the non-helper, who may set an example for permissible or expected behaviour in the situation (Hornstein, 1970; Gross and Latané, 1974). This possibility is indicated by findings from some other experiments (Hornstein, Fisch and Holmes, 1967; Wagner and Wheeler, 1969; Harris, 1971). In addition, the likelihood of later help by the recipient is lower if the former donor communicates a need for help than if no such need is communicated (Experiment I). This observation contradicts the principle of the social responsibility norm (Berkowitz and Daniels, 1963, 1964), and can be explained as being due psychological reactance (Brehm, 1966; Wicklund, 1974) evoked by the communicated need for help.

The reciprocity norm also affects reactions to aid in a choice-setting. Recipients accept more help when they are informed of a later opportunity for returning the favour, than when they unaware of such an opportunity (Experiments II and III). This probably occurs because accepting help that cannot be repaid generates indebtedness (Greenberg, 1968, 1978; Shumaker and Jackson, 1977) caused by the inequity inherent in unreturned favours. When the opportunity for reciprocation actually arises, recipients who formerly anticipated it offer more help subsequently than those who did not anticipate it. This reciprocity effect appears both when the choices are made simultaneously by the donor and recipient, and when the recipient chooses after knowing the donor's choices (Experiment II and III).

Indication of expected reciprocity is obtained also in the donor's offers under simultaneous choices. Donors who anticipate an opportunity

for reciprocation of their favour make more offers of help than donors who do not anticipate such an opportunity (Experiment II). When the occasion arises, the former donors who knew about this opportunity accept more help than those who had not anticipated such an opportunity.

The above effects of reciprocity occur in situations where the donor and recipient choose interdependently, that is, each person's choices affect the other's choices. But effects of the reciprocity norm mediated by indebtedness and without interference by reactance, occur even more strongly when the donor chooses independently of the recipient. Recipients accept, and subsequently return more help when they expect a future opportunity for repaying the former donor, than when they do not expect such an opportunity (Experiment IV). Further evidence of the reciprocity norm is obtained in the form of positive correlations between choices related to acceptance of help in the prior situation, and choices related to offers of help in the subsequent situation (Experiments II and VI), when choices are made simultaneously by the donor and recipient, and when the recipient chooses after the donor, the latter having made a statement (conditional or unconditional) about the amount of help he/she intends to offer the recipient.

The recipient's reactions to help are also affected by the amount of help offered by the donor. Recipients accept more help from and later return more help to a donor who gives a large amount of help than to one who gives small amount of help (Experiments IV, V and VI). A possible explanation for the acceptance of more help from a more generous donor than from a less generous donor is that in this setting,

where acceptance of rewards (points) would be considered legitimate, the donor who makes more offers of help is perceived as being truly helpful, while the donor who makes a small number of offers is perceived as being less willing to help. Aceeptance of help is thus determined at least partly by the motives attributed to the donor. In the subsequent situation, help is returned according to the amount of help accepted in the prior situation. Since more help is accepted when a large amount is offered than when a small amount is offered, a higher proportion of helpful choices is made subsequently in the former condition than in the latter condition, which is in accordance with reciprocity and equity considerations.

Stating and carrying out an intention to give a specific amount of help has some unexpected effects on the recipients' responses to helpful choices by the donor. There is some indication that recipients accept more help when the intention states a large amount of help than when it states a small amount. It is interesting that recipients make more accept choices when the donor gives less help than stated in the intention, compared to the accept choices when the donor gives more help than stated in the intention. Together, these findings imply that the recipients' acceptance of help in the prior situation is affected more by the amount stated in the donor's intention than by the amount actually offered. Subsequently, the amount of help returned to the former benefactor depends on the amount of help offered in the prior situation. More help is returned to a donor who was more generous compared to one who was less generous (Experiment V).

Stating an intention to give a specific amount of help along with a condition regarding the amount of help to be returned by the recipient on a subsequent occasion, leads to acceptance of more help by recipients, than does a statement of intention with no condition attached to the offer of help (Experiment VI). A conditional offer of help is probably considered more equitable (Homans, 1961; Adams, 1965) and is more in agreement with the reciprocity norm than an unconditional offer of help. Evidence of this possibility is available in the finding that, in general, recipients agreed to return the same amount of help that the donor promised to give, in a situation where both the donor and the recipient knew about a forthcoming opportunity for returning the favour. Because the conditional statement is considered more equitable than the unconditional statement of intention, it does not evoke reactance (Brehm, 1966; Wicklund, 1974).

In summary, the findings of the experiments in this research using a task-performance and choice setting demonstrate the operation of reciprocity and equity, effects of indebtedness, more or less generous motives attributed to the donor, and reactance under one condition, namely, when the former donor communicates a need for help on a subsequent occasion.

The effect of sex composition of the donor-recipient dyad on the recipient's reactions to help depends on various situational factors. In a simple task-performance setting, later return of help is more likely than no return of help in same-sex male dyads, while in all other types of dyads, later return and no return of help are equally likely (Experiment I). In a choice-setting, sex composition effects depend on whether

choices are made simultaneously or successively, whether they are interdependent between the donor and recipient, or made by the donor independently of the recipient's choices. In the interdependent, simultaneous choice situation (Experiment II), sex differences vary between the prior and subsequent situation. In the prior situation, more Accept-related and Offer-related choices are made in mixed dyads than in same-sex dyads. The finding on Offer-related choices is similar to that on cooperative choices reported by Wiley (1973). In the subsequent situation, however, more Accept-related and Offer-related choices are made among same-sex dyads than among mixed dyads. Under interdependent, successive choices (Experiment III), sex differences are even more changeable, not only between the prior and subsequent situation, but also between the Information and No information conditions, and between Accept-related and Offer-related choices. Much greater consistency is observed when the donor chooses independently of the recipient(Experiments IV,V and VI). Males with a male donor in general accept more help, and subsequently return more help than do females with a female donor. In the case of prior acceptance of help, this finding is an interesting departure from the traditional image of the female as being more dependent, help-seeking and therefore more willing to accept favours (Mischel, 1966; Gruder and Cook, 1972; Whiting and Edwards, 1973). The finding with respect to subsequent help, in addition to being in accordance with reciprocity and equity, is also consistent with the observation of greater competitiveness among females than among males (e.g. Bixenstine,Chambers and Wilson,1964; Rapoport and Chammah, 1965; Carment,1974). As an explanation for this

finding it is suggested that in a choice-setting of the kind used here, females are perhaps more concerned about the social aspects of the situation (e.g. appearing good by not accepting too many rewards) than about maximizing gains. Males, on the other hand, are more motivated by optimization of gains when possible. In the subsequent situation, both males and females reciprocate, the former returning more help than the latter since the former also accepted more help previously.

These general statements need to be qualified in view of certain features of the experimental findings. Many of the results described above (e.g. the effect of stating and carrying out an intention, conditional or unconditional statement of intention, etc.) failed to reach a statistically reliable level. However, these findings appear with such obvious regularity that they strongly suggest 'real' effects of the variables under study.

Some aspects of reciprocal helping as it occurred in these experiments also require some elaboration. Within the two settings used here, especially in the choice setting, theoretically the reciprocity norm can be manifested in either or both of two forms :

a) the recipient may return as much help as was offered to him in the prior situation, regardless of how much he actually accepted.

b) the recipient may return as much help as he accepted in the prior situation, regardless of how much was offered to him.

Considering the first form of reciprocity, it was observed that when a small amount of help was offered, the amount of help returned was either comparable to or slightly higher than the amount of help

offered previously. But when a large amount of help was offered, the amount returned subsequently was systematically less than the amount previously offered. This under-reciprocation is quite likely due to the change of role from one of relative advantage (the recipient's position) to one of relative disadvantage (the donor's position) from the prior to the subsequent situation, even though this change represents one from a less powerful to a more powerful role, in terms of fate control (Thibaut and Kelley, 1959). Apparently, this change in rewards obtainable is resented more when the recipient is given a large amount of help than when he is given a small amount of help, which is reflected in the under-reciprocation in the former condition.

The second form of reciprocity mentioned above emerged in the form of significant, positive correlations between Accept-related choices in the prior situation and Offer-related choices in the subsequent situation, as discussed earlier. One point may be noted in this regard. Such direct reciprocity occurred in two experiments that represent two extreme degrees of information about the situation. On one hand, such correlations were found the donor and recipient chose simultaneously, neither person knowing exactly about the other's choice. Under this condition, choices were also interdependent. On the other hand, direct reciprocity was found when the recipient chose after knowing exactly what the donor had chosen, when the donor stated his intention with or without a condition for reciprocation, about the amount of help to be given, when the donor made choices independently of the recipient's

reactions, and when both the donor and recipient were specifically informed about a later opportunity for reciprocation.

Changes in the recipient's reactions to help over time took the form of interactions between trial blocks and other independent variables, rather than the form of main effects.

Finally, with respect to the questionnaire measures used, responses to items related to the recipient's liking for the donor and perceived reasons for the donor's generosity or lack of it were similar across experimental conditions, which is discrepant from other studies that deal with either of these measures (e.g. Gross and Latané, 1974; Fisher and Nadler, 1974, 1976). This suggests that the nature and duration of the donor-recipient interaction in this context necessitates a change in the kind of measures employed for liking and attributed motives.

Implications of the Present Research

Although conclusions from the findings of these studies should be generalized with some caution, and should be considered tentative, until more research is done using similar experimental settings, the present research does provide some valuable guidelines for future work on the recipient of help.

First, both the task-performance and choice-setting findings corroborate earlier findings obtained from other studies. The choice setting used here provides another appropriate medium for the study of recipient, in addition to the traditional task-performance settings

encountered in the field of helping behaviour. Moreover, this research exhibits clearly that a choice setting with the appropriate reward-structure can be gainfully used for the study of prosocial behaviour. It is worth noting that apart from a mention of the matrix (Marwell and Schmitt, 1968; Vinacke, 1969) and a cross-cultural study using this matrix (Carment, private communication), the Altruism matrix does not appear to have been discussed or experimentally investigated. Findings from the studies reported in this research bear out a remark made by Marwell and Schmitt (1968) on this "mathematically trivial" game :

> " Mathematically trivial games may not be trivial psychologically. "
>
> (Marwell and Schmitt, 1968, p.125)

Secondly, this research brings to one's attention the necessity of using a confederate to hold donor variables constant, when the recipient is being studied. Since receiving help pre-supposes help-giving, it is important to ensure in any experimental setting that help is actually given. Under 'normal' circumstances in the laboratory, spontaneous helping almost never seems to take place, thus making the use of a confederate unavoidable. In a broader sense, this points to the difficulties that can be anticipated in a naturalistic observation of recipients' reactions to aid.

Thirdly, there is agreement between the findings of the present research, and findings, not only from studies using conventional helping situations, but also from studies involving choice settings that deal with a conflict of interests between the participants. This implies that certain basic principles of social exchange apply to any setting that qualifies as an interpersonal exchange situation.

Finally, as in the case of laboratory findings in any field of social psychology, the present findings must be applied to real-life situations with reservations. A number of investigators have suggested that findings from experimental studies of the recipient of aid in laboratory settings may have implications for real-life situations, like the case of a developing country receiving foreign aid (Gergen and Gergen, 1974; Middlebrook, 1974; Freeman, 1977). It was mentioned in the introductory chapter that there are no doubt a number of differences in the circumstances of a real-life recipient of aid, and the individual recipient who serves as a subject in an experiment. Nevertheless, this does not render all laboratory research meaningless. As more research continues to be done on the recipient, it will become possible to identify some of these differences, so that they can be further tested as determinants of recipient reactions in general.

Suggestions for further research

The apparent simplicity of the preceding statements, giving a generalized interpretation of the obtained findings, is by no means intended to show that recipient responses to aid may always be explained in a straightforward manner. For instance, when a need for help was communicated within a task-performance setting, instead of the expected effect of the social responsibility norm, what was observed was the effect of reactance, making help less likely rather than more likely when a need for help was communicated. It has to be admitted that a number of questions remain unanswered even within the studies reported

here. To mention two of these, the effect of need-communication, varying the mode and salience of this communication, and the effect of stated intention with and without information about a later opportunity for returning a favour, require further study. Yet another issue that may be worth investigating is that of degree of reciprocation with reference to the amount of help offered/accepted on a prior occasion.

Apart from these issues, information about real-life recipients is necessary to bear out the findings reported in this research. The results of these laboratory experiments can become truly meaningful only when they are supported by observations in the field, although it cannot be denied that field experiments on reactions to aid may be very difficult to conduct. However, a start may be made in this direction with the administration of questionnaires to recipients in the real world, and the next step in continuation of the present research is intended to be in that direction. It could be argued that responses to questionnaires presenting hypothetical recipient situations may be only remotely related to actual behaviour. But even such hypothetical responses from people may enable us to verify laboratory findings on the recipient of aid.

Finally, since the setting is likely to be an important determinant of recipient reactions, it would be helpful to design a set of parallel studies, involving the same factor in more than one experimental or field setting. Such an undertaking would not only add to the external validity of laboratory studies of the recipient, but would also provide much-needed information on other determinants

of responses to aid, especially with respect to the characteristics of the benefit or resource exchanged, which is presumably related to the nature of the setting.

APPENDIX I

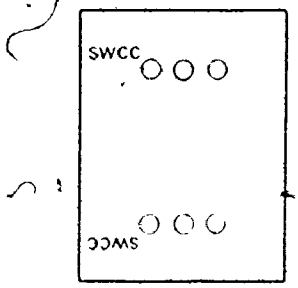
Instructions for the SWCC Task (Experiment I)

(Kolb, Rubin, and McIntyre, 1974)

DIRECTIONS FOR MAKING THE SHALLOW WATER CARGO CARRIER

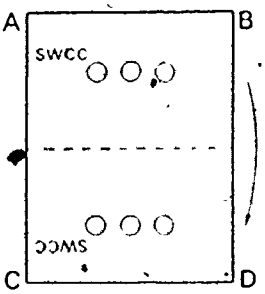
These are directions for making a Shallow Water Cargo Carrier, The first nine steps are the same as for the Moon Tent. For each step there is a picture showing what to do, and another picture showing what it should then look like. There are fourteen steps.

1. Hold the sheet of paper so the printing on it is facing up, the letters SWCC nearest you are upside down (ↃↃMS).



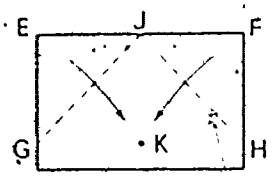
It should look like this:

2. Fold AB to CD.

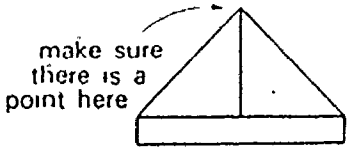


It should now look like this:

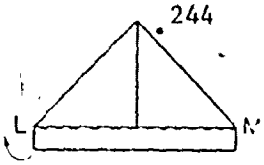
3. Fold in along JG and JH so that E and F meet at point K.



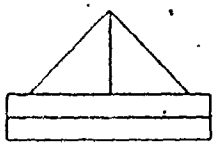
It should now look like this:



4. Fold *one layer* of paper (up direction) along LM.

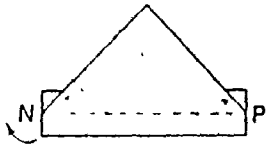


It should now look like this:



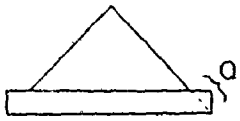
5. Turn your Shallow-Water Cargo Carrier over to the other side. It should look like this:

6. Fold (up direction) along NP



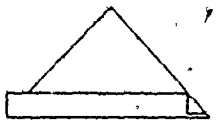
It should look like this:

7. Tuck section Q (just the top layer of paper) back around the edge of the carrier, so it is between the back of the carrier and the back layer of paper.



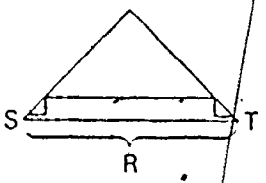
Fold section Q (back piece) toward you over the edge of the carrier and press flat.

It should now look like this:

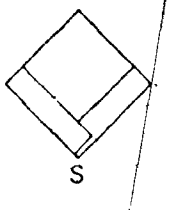


8. Do the same thing to the *left end* (*don't turn it over*). It should now look like this:

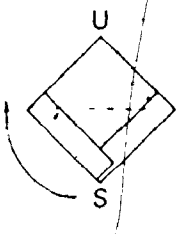
9. Pick up the Shallow-Water Cargo Carrier and hold it in your hands with the open side (R) down. Open up R with your fingers and keep pulling it apart until points S and T meet.



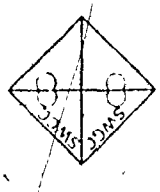
Turn the paper so that S is facing up and T is underneath. It should now look like this.



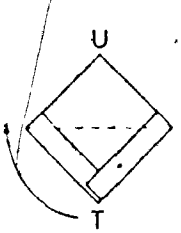
10. Fold up S to U.



It should now look like this:

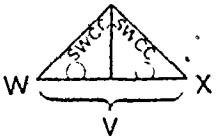


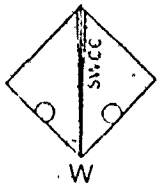
11. Turn over so that T is facing up (side without printing on it). Fold up T to U.



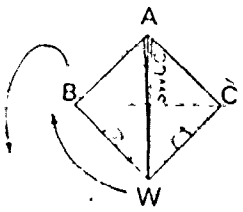
It should now look like this:

12. Pick up the carrier and hold it in your hands, with the open side, V, down. Open V with your fingers and keep pulling it apart until points W and X meet. Turn the paper so that W is facing up and X is underneath. It should look like the diagram shown here:

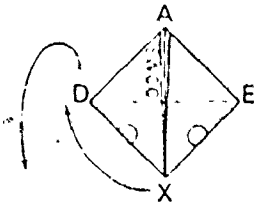




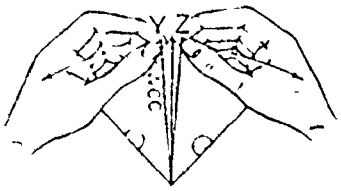
13. Fold W to A and then *bring W back down* again to its original position. There should now be a crease at BC.



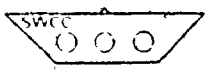
Turn over so that X is facing up. Fold X to A and then *bring X down* again to its original position. There should now be a crease at DE.



Grab Y (front and back at the top left point) with left hand, and Z (front and back at the top right point) with right hand and pull apart as far as it will go.



It should now look like this:



14. Stand it up. You have finished making your Shallow-Water Cargo Carrier!

APPENDIX I a

Additional Instructions for the SWCC Task(Experiment I)

It is important for both of you to note that this is not a competitive situation. Your work will be evaluated both for quality and for quantity. So please try to work as fast as you can, but not at the cost of quality.

You can talk to each other if necessary, but please do not let this interfere with your work.

Please finish a boat before you proceed to the next one. When you finish making all your boats, you can put them back in the same envelope.

Let me know when you finish. Do you have any questions ?

APPENDIX II

Instructions for the Digit-Symbol Substitution Task

(Experiment I)

INSTRUCTIONS

This task is called 'SUBSTITUTION".

Please read this code carefully:

2 = 

4 = 5 x 3

7 = T

6 = $(9)^2$

3 = 

8 =

5 = the opposite of NIGHT

1 = 28

Enclosed in the envelope are a number of sheets with numbers on them. Your task is to substitute, from the above, the symbol corresponding to each number, and to write these symbols in the space provided below each number.

Please work as fast as you can, but at the same time, keep accuracy in mind. Please do not skip any number. Do not go on to the next sheet until you complete one sheet. After you finish one sheet, turn it over and keep it aside, and do not look at it a second time.

DO NOT BEGIN UNTIL YOU GET THE "START" SIGNAL.

APPENDIX II a

Additional Instructions for the Substitution Task (Experiment I)

It is important for both of you to note that this is not a competitive situation. Your work will be evaluated both for accuracy and for quantity. So please try to work as fast as you can, but not at the cost of accuracy.

You can talk to each other if necessary, but please do not let this interfere with your work.

Please finish a sheet before you proceed to the next one. When you finish doing all your sheets, you can put them back in the same envelope.

Let me know when you finish. Do you have any questions ?

APPENDIX III

Questionnaire used for the Post-experimental Interview

(Experiment I)

Name
Age of brothers (if any)
Age of sisters (if any)
Father's occupation — Mother's occupation
Joint family income
Year in university — Major

---

1. Did you enjoy the experiment ?

   How much ?

   Immensely ○ Very much ○ Neither too much nor too little ○ Very little ○ Not at all ○

2. How do you feel about the quality of your work ? Do you think you did

   Excellently — Fairly well — Neither well nor poorly — Quite poorly — Very poorly

3. How do you feel about the quantity of work ? Do you think you

   Did as much as you could possibly have done ? ○
   Could have done more than you actually did ? ○

4. Did you make all the cargo-carriers yourself ? Yes ○ No ○

5. If not, how many did the other person make for you ?

6. Did you ask him/her to make these/ any ? Yes ○ No ○

7. Did he/she offer to make any for you ? Yes ○ No ○

8. Why do you think he/she offered/did not offer to make the boats ?

9. Did you accept the offer ? Yes ○ No ○

10. Why ? Why not ?

11. Did you make or offer to make any cargo-carriers for the other

person ? Yes ○ No ○ Accepted ○ Refused ○

12. Why ? Why not ?

13. Did you do all your substitution sheets yourself ? Yes ○ No ○

14. If not, how many did the other person do for you ?

15. Did he/she offer to do any for you ? Yes ○ No ○ Accepted ○ Refused ○

16. Did you ask him/her to do any for you ? Yes ○ No ○ Agreed ○ Disagreed ○

17. Did you do or offer to do any sheets for the other person ? Yes ○ No ○

How many ?

18. Did he/she accept or refuse the offer ?

19. Why did you offer/not offer to do some sheets for the other person ?

20. How much did you like the other person ?

A great deal ○ Very much ○ Neither too much nor too little ○ Very little ○ Not at all ○

21. You may be asked to come back for the same experiment, or a similar one. If so, would you

Like to work with the same person ? ○

Prefer to work with someone else ? ○

22. According to your first feeling reactions, indicate all those relationships you would be willing to enter into with the other person.

I would like him/her to be a close personal friend ○

I would like to meet him/her frequently ○

I wouldn't mind meeting him/her occasionally ○

I have no desire to meet him/her again ○

23. Any comments ?

APPENDIX IV

Instructions for Simultaneous Choices (Experiment II)

INSTRUCTIONS

You are participating in a study of group behavior. You will be involved in a situation that is similar in many ways to many real-life situations in that what you gain or lose will be determined both by your behavior and by the behavior of the other participant. One of you will be known as Yellow and the other will be known as Red. Your colour is indicated on the panel in front of you.

Basic Situation

Both of you have an opportunity to earn some money. The amount you earn will depend on the number of points you accumulate. The number of points you obtain will depend on which of the four cells of the panel in front of you is chosen.

It takes both of you to make this choice. Red, you are to choose whether it will be in the top row of cells or the bottom row of cells. Your buttons are to the right of your panel. The button labelled 1 chooses the top row and the button labelled 2 chooses the bottom row.

Yellow, you are to choose whether it will be in the right-hand column or the left-hand column. Your buttons are below your panel. The button labelled 1 chooses the left-hand column and the button labelled 2 chooses the right-hand column.

You will notice that each of the four cells in the panel is

divided by a diagonal line and contains two numbers. The number above the diagonal are the points you will receive, and the numbers below the diagonal are the points the other person will receive. For example, if the right-hand top cell is chosen, then Red gets 2 and Yellow gets 2. If the left-hand top cell is chosen, then Red gets 10 and Yellow gets 1. If your colour is Yellow then your points are lettered in yellow. If your colour is Red, your points are lettered in red.

You can see, then, that if Red chooses the top row, Red's outcome will be either 10 or 2, depending on which column Yellow chooses. If Yellow chooses the left-hand column, then his outcome would be 10, and if he chooses the right-hand column, his outcome would be 2. Remember, it is what both of you do that determines the number of points each of you obtains.

Before each trial the experimenter will say: " Ready ? Trial number - . Begin ! " The machine will light up the chosen cell on the panel in front of you only after both of you have made your choice. Then you are given time to record your points on the record sheet in front of you. Record the number of points you obtain under the column headed " My points". Record the other person's points in the column headed "Other's points". If, when the experimenter say "Ready" you are still in doubt as to which cell was chosen or have had insufficient time to make a record of the points, please say: " One moment, please ! "

At the end of every 10 trials you will be instructed to stop,

whereupon you will add up both your points and the other person's points to keep a cumulative record. You will be given 25¢ for every 100 points you have obtained.

Please consider each choice carefully. You are asked to please refrain from talking during the experiment.

You may now have some practice trials. Be sure to let the experimenter know if you don't understand.

APPENDIX V a

1st Questionnaire (after Trial 25)

Name Student number
Age Sex
Age of sisters(if any) Age of brothers(if any)

Father's occupation:
Mother's occupation:

Joint family income: Up to $ 5,000_____
$ 5,000 to $10,000_____
$10,000 and above_____

We are interested in the impressions obtained of people on the basis of this short contact. Please answer all of the following questions by placing a check (✓) in the appropriate circle.

Your answers will be kept confidential, so please answer honestly.

1. How much do you like the experiment ?

A great deal ○ Very much ○ Don't care one way or another ○
Very little ○ Not at all ○

2. How much do you like the other person ?

A great deal ○ Very much ○ Don't care one way or another ○
Very little ○ Not at all ○

3. You might be asked to come back for this experiment or a similar one. If so, would you

Like to work with the same person ? ○
Prefer to work with someone else ? ○

4. According to your first feeling reactions place a check (✓) in front of all those relationships that you would be willing to enter into with the other person.

I would like him/her to be a close personal friend ○
I would like to meet him/her frequently ○
I wouldn't mind meeting him/her occasionally ○
I have no desire to meet him/her again ○

5. Do you think the other person allowed you to get

A. Too many points ○ B. Too few points ○

6. If you checked A in question 5, what do you think was the reason ?

Because he/she wanted to help me ○
Because he/she wanted to show his/her superiority ○
Because he/she expected me to return the favor ○
Because he/she didn't really care about getting more points ○
Other reasons (specify):

7. If you checked B in question 5, what do you think was the reason ?

Because he/she did not want to help me ○
Because he/she did not want to make me feel inferior ○
Because he/she thought I would not return the favour ○
Because he/she was eager to get more points ○
Other reasons (specify):

Any other comments ?

APPENDIX V b

2nd Questionnaire (after Trial 50)

Name Student number

Now that you have had an opportunity to interact with each other for a somewhat longer period of time, please indicate your impressions in the following questions.

Remember, your answers will be kept confidential, so please reply honestly.

1. How much do you like the experiment ?

A great deal ○ Very much ○ Don't care one way or another ○
Very little ○ Not at all ○

2. How much do you like the other person ?

A great deal ○ Very much ○ Don't care one way or another ○
Very little ○ Not at all ○

3. You might be asked to come back for this experiment, or a similar one. If so, would you

Like to work with the same person ? ○
Prefer to work with someone else ? ○

4. According to your first feeling reactions, place a check (✓) in front of all those relationships that you would be willing to enter into with the other person.

I would like him/her to be a close personal friend ○
I would like to meet him/her frequently ○
I wouldn't mind meeting him/her occasionally ○
I have no desire to meet him/her again ○

5. Do you think the other person allowed you to get

A. Too many points ○ B. Too few points ○

6. If you checked A in question 5, what do you think was the reason ?

Because he/she wanted to help me ○
Because he/she wanted to show his/her superiority ○
Because he/she expected me to return the favour ○
Because he/she didn't really care about getting more points ○
Other reasons (specify):

7. If you checked B in question 5, what do you think was the reason ?

Because he/she did not want to help me ○
Because he/she did not want to make me feel inferior ○
Because he/she thought I would not return the favor ○
Because he/she was eager to get more points ○

Any other comments ?

APPENDIX VI

Instructions for Successive Choices (Experiment III)

INSTRUCTIONS

You are participating in a study of group behavior. You will be involved in a situation that is similar in many ways to many real-life situations in that what you gain or lose will be determined both by your behavior and by the behavior of the other participant. One of you will be known as Yellow and the other will be known as Red. Your colour is indicated on the panel in front of you.

Basic Situation

Both of you have an opportunity to earn some money. The amount you earn will depend on the number of points you accumulate. The number of points you obtain will depend on which of the four cells of the panel in front of you is chosen.

It takes both of you to make this choice. Red, you are to choose whether it will be in the top row of cells or the bottom row of cells. Your buttons are to the right of your panel. The button labelled 1 chooses the top row and the button labelled 2 chooses the bottom row.

Yellow, you are to choose whether it will be in the right-hand column or the left-hand column. Your buttons are below your panel. The button labelled 1 chooses the left-hand column and the button labelled 2 chooses the right-hand column.

You will notice that each of the four cells in the panel is divided by a diagonal line and contains two numbers. The numbers above the diagonal are the points you will receive, and the numbers below the

diagonal are the points the other person will receive. For example, if the right-hand top cell is chosen, then Red gets 2 and Yellow gets 2. If the left-hand top cell is chosen, then Red gets 10 and Yellow gets 1. If your colour is Yellow then your points are lettered in yellow. If your colour is Red, your points are lettered in red.

You can see, then, that if Red chooses the top row, Red's outcome will be either 10 or 2, depending on which column Yellow chooses. If Yellow chooses the left-hand column, then his outcome would be 10 and if he chooses the right-hand column, his outcome would be 2. Remember, it is what both of you do that determines the number of points each of you obtains.

You will make your choices successively on each trial. The experimenter will draw lots to decide who will begin.

Before each trial, the experimenter will say: " Ready ? Trial number - . Begin ! " The person beginning will now make his/her choice. This will be indicated to the other person, because the machine will light up the chosen cells on the panel.

The other person will then make his/her choice. The common choice will be indicated after this on the panel (that is, the cell that represents both of your choices will now light up).

For example, if Yellow goes first and chooses the right-hand column, both cells in this column will be lighted up in the panel in front of you, whereupon Red will have to make his/ her choice. If Red now chooses the top row, the common choice will be the top right-hand cell; therefore, this cell will light up, thus giving Red 2 points and Yellow 2 points.

Record the number of points you obtain under the column headed " My points ". Record the other person's points in the column headed " Other's points ". If you are still in doubt as to which cell was chosen or have had insufficient time to make a record of the points, please say: " One moment, please ! "

The same procedure will be repeated on every trial. At the end of every 10 trials you will be instructed to stop, whereupon you will add up both your points and the other person's points to keep a cumulative record. You will be given 25¢ for every 100 points you have obtained.

Please consider each choice carefully. You are asked to please refrain from talking during the experiment.

You may now have some practice trials. Be sure to let the experimenter know if you don't understand.

APPENDIX VII

Instructions to the confederate for the Pattern of Choices to be made in Small amount/ Large amount conditions

(Experiment IV)

Small Amount condition

Practice trials: Please press : 1) Button 1, and 2) Button 2 in that order.

Choices: Until trial 25, press button 1 on trials 3, 5, 9, 10, 12, 17, 22, and 23, and button 2 on all other trials. When you are on the Red side, press the top button on all trials.

Please leave this sheet on your table so that it can be picked up with your questionnaire. Thank you !

Large Amount condition

Practice trials: Please press : 1) Button 1, and 2) Button 2 in that order.

Choices: Until trial 25, press button 2 on trials 5, 10, 11, 16, and 19, and button 1 on all other trials. When you are on the Red side, press the top button on all trials.

Please leave this sheet on your table so that it can be picked up with your questionnaire. Thank you !

APPENDIX VIII

Questionnaire used after Trial 25, and in post-experimental interview (Experiment V)

Name: Student number:

Age: Sex: Year in university:

Age of sisters(if any):

Age of brothers (if any):

Joint family income: Up to $ 5,000_____
$ 5,000 to $10,000____
$10,000 to $20,000____
$20,000 and above_____

All your answers will be kept confidential. So please answer honestly.

1. How much do you like this situation ?

A great deal ○ Very much ○ Don't care one way or another ○ Very little ○ Not at all ○

2. How much do you like the other person (on the basis of this interaction)?

A great deal ○ Very much ○ Don't care one way or another ○ Very little ○ Not at all ○

3. You might be asked to come back for this experiment, or for another similar one. If so, would you

Like to work with the same person ? ○
Prefer to work with someone else ? ○

4. According to your first impressions, place a check (✓) in front of all those relationships you would be willing to enter into with the other person.

I would like him/her to be a close personal friend ○
I would like to meet him/her frequently ○
I wouldn't mind meeting him/her occasionally ○
I have no desire to meet him/her again ○

5. Do you think the other person allowed you to get

A. Too many points ○ B. Too few points ○

6. If you checked A in question 5, what do you think was the reason ?

Because he/she wanted to help me ○
Because he/she wanted to show his/her superiority ○
Because he/she expected me to return the favour ○
Because he/she didn't really care about getting more points ○
Other reasons (specify) :

7. If you checked B in question 5, what do you think was the reason ?

Because he/she did not want to help me ○
Because he/she did not want to make feel inferior ○
Because he/she thought I would not return the favor ○
Because he/she was eager to get more points ○
Other reasons (specify):

8. How did you feel about being RED/ YELLOW ?

Very happy ○ Satisfied ○ Neutral ○ Dissatisfied ○ Very unhappy ○

9. Do you think RED/ YELLOW actually did what he/she said he/she would do ?

10. Generally, what was the reason for your choices ?

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