Inhibiting Effects of Reciprocation Wariness on Interpersonal Relationships

Norman Cotterell
Center for Cognitive Therapy, University of Pennsylvania

Robert Eisenberger and Hilda Speicher
University of Delaware

Students with high reciprocation wariness, a general fear of exploitation in interpersonal relationships, showed (a) a markedly reduced positive response to cooperative communication in a Prisoner's Dilemma bargaining task, (b) a greater negative response to uncooperative communication, and (c) an increased positive response to the prospect of long-term interaction. Friends and roommates of high-wary students evaluated them as unsympathetic, inconsiderate, and manipulative. Students who were supervised by high-wary dormitory resident assistants evaluated them as unapproachable, hesitant to develop close relationships, and unresponsive to student needs. Wariness was found to be unrelated to social goal orientation and Machiavellianism. Reciprocation wariness appears to inhibit the establishment and strengthening of interpersonal relationships.

According to Gouldner (1960), there is a universal ethic requiring that aid received from others be compensated. Consistent with this view, greater help received generally increases the amount of help returned (e.g., Berkowitz & Friedman, 1967; DePaulo, Brittingham, & Kaiser, 1983; M. Greenberg & Bar-Tal, 1976; M. Greenberg & Frisch, 1972; Pruitt, 1968; Tesser, Gatewood, & Driver, 1968; Wilke & Lanzetta, 1970). Gouldner suggested that the norm of reciprocity is taught as a moral obligation and serves as a starting mechanism for the mutually beneficial exchange of help.

One may aid others, in part, to incur obligations and thereby establish a mutual exchange of rewards. The reciprocity norm would encourage individuals to help others generously so as to engender obligations that could be drawn on in the future (Blau, 1964; M. Greenberg, 1980). Consistent with views of distributive justice that stress personal gain and self-presentation (e.g., J. Greenberg & Cohen, 1982; Leventhal, 1976; Major & Adams, 1983; Reis, 1981), it has been found that more resources are allocated to partners with whom future interaction is expected (Danheiser & Graziano, 1982; J. Greenberg, 1979; Sagan, Pondel, & Wittig, 1981; Shapiro, 1975).

As with the initiation of help, the repayment of help can serve a strategic purpose. Gouldner (1960) noted that, to strengthen interpersonal relationships, partners often return more help than they previously received. The role of anticipated self-gain in reciprocation is indicated by findings that repayment following help was greater if the original donor was expected to possess high future resources and would thus be able to provide greater subsequent assistance (Eisenberger, Cotterell, & Marvel, 1987; Pruitt, 1968).

Recent research suggests that people differ in their beliefs concerning the morality and utility of compensating help. Martin S. Greenberg and David R. Westcott (1983) proposed that some individuals, termed creditors, believe in obligating others by returning greater help than they have received. Examination of questionnaire responses concerning the morality and tactics of reciprocation indicated systematic individual differences in the strength of such creditor ideology; as well as differences in a second, independent factor involving a general fear of exploitation in interpersonal relationships (Eisenberger et al., 1987). The latter factor, reciprocation wariness, included expressed disinclinations to accept aid, return aid, or contribute a great deal to social relationships.

Eisenberger et al. (1987) studied the effects of creditor ideology and wariness on reciprocation, using the Prisoner's Dilemma bargaining task (Pruitt & Kimmel, 1977). In such a task, contributions of high resources by each partner produce large payoffs for both partners, and contributions of low resources by each partner produce small payoffs. More problematic for a generous partner who contributes high resources is the possible contribution of low resources from an uncooperative partner, in which case the uncooperative partner secures the bulk of the resources. Such interdependence characterizes the risk inherent in everyday relationships; that is, people can gain from making an increased contribution to a relationship, but they run the risk of being taken advantage of by a self-seeking partner.

The form of the Prisoner's Dilemma task used by Eisenberger et al. (1987) involved an exchange of money, with gifts made more beneficial by paying the receiver 1.5 times more than the sender gave (Pruitt, 1968). The results indicated that high creditors reciprocated their partner's gifts more generously than did low creditors. Furthermore, high-wary individuals reciprocated less generously than did low-wary individuals to partners who had given them high resources, and they later described such partners as less likable and less fair. This reticence of high-wary individuals to reciprocate did not appear to represent a generalized selfishness; the high-wary subjects returned somewhat greater resources than did the low-wary subjects to partners who had given them little aid, presumably wishing to compensate those donors who did not appear to be trying to ensnare them in unwanted obligations.

A moderate degree of reciprocation wariness would seem
prudent in everyday life because donors often have the opportunity to select the time and type of repayment and thus can later place exorbitant demands on the recipient (Cialdini, 1988). However, the high-wary individuals' strong suspicion of others' help and their hesitancy to repay such help can have the unintended consequence of inhibiting the mutual trust that plays a key role in the development of interpersonal relationships (Rempel, Holmes, & Zanna, 1985). Pruitt and Smith (1981) conceived of trust as confidence that another individual is cooperatively motivated or has generous intentions. Deutsch (1973) defined trust as a generalized belief that others will act benevolently. Rotter (1967, 1980) stressed the importance of the expectancy that other people will keep their word and be true to their promises. Scanlonz (1979) noted that trust implies a willingness to change plans or alter activities on the basis of such confidence. The high-wary person's suspicions of others and disinclination to return aid might result in being viewed as self-centered and undependable and might inhibit the development of strong interpersonal relationships (cf. Rempel et al., 1985).

The present research examined the inhibitory effects of reciprocation wariness in the development of social relationships. In our first study, we investigated the responses of reciprocation-wary individuals to offers of cooperation, threats of noncooperation, and anticipation of future interaction. Next, in a series of studies, we investigated the ecological and discriminant validity of reciprocation ideologies. We examined the impressions of reciprocation-wary college students formed by roommates and friends and the impressions of reciprocation-wary dormitory resident assistants formed by the students they supervised. We also assessed the independence between reciprocation ideologies and social goal orientations (cooperativeness, competitiveness, and individualism; Kelley & Stahelski, 1970) and between reciprocation ideologies and Machiavellianism, which involves a willingness to disregard conventional morality to take advantage of others for personal gain (Christie & Geis, 1970).

Study 1

Lindskold (1978) proposed that among partners with equivalent resources, statements of cooperative intent were a highly effective way to instill trust and thereby evoke a benevolent response. To test this view, Lindskold and his colleagues conducted a series of studies using two-person Prisoner's Dilemma bargaining games in which each partner had to balance the potential for mutual gain through cooperation against the risk of being taken advantage of (Lindskold, Han, & Betz, 1986a, 1986b; Lindskold, Walters, & Koutsourais, 1983). The effects of communication on cooperation were assessed by having a partner, who was actually a confederate of the experimenter, state a desire to cooperate as the best way for both parties to benefit.

Such communications were found to elicit cooperation and to prompt subjects to describe their partners as more trustworthy than those who did not communicate or who indicated a desire to compete (Lindskold, Betz, & Walters, 1986; Lindskold & Han, 1988; Lindskold, Han, & Betz, 1986a, 1986b; Lindskold et al., 1983). Just as cooperative communication encouraged cooperation, uncooperative communication weakened it (Tedeschi, Malkis, Gaes, & Quigley-Fernandez, 1980). Subjects in a Prisoner's Dilemma game reacted to a confederate partner's threats of uncooperative behavior or the partner's actual uncooperative behavior by issuing threats of their own and acting in an uncooperative fashion (Lindskold, Betz, & Walters, 1986; Youngs, 1986).

Although the preceding research suggests that most people react to cooperative communications with considerably increased cooperation and respond to uncooperative communications with decreased cooperation, there may be systematic individual differences in such responsiveness. Insko, Schopler, Hyle, Dardis, and Graetz (1990) found that uncooperative behavior in a Prisoner's Dilemma game was motivated, in part, by a fear of being taken advantage of. Offers of cooperation might therefore be less effective with those who have a general fear that exploitation will result from a premature extension of trust. High-reciprocation-wary individuals should distrust partners' statements of cooperative intent and therefore respond less positively than should low-wary individuals. High-wary persons might additionally magnify the importance of uncooperative statements, responding with greater negativity than do others to such communications.

Another factor that may influence the development of cooperation is the expectation of future interaction. The prospect of repeated future interaction allows one to anticipate multiple opportunities for rewarding benevolence as well as for retaliating against perceived exploitation. The protection provided by expected future interaction in redressing grievances might allay the fears of high-reciprocation-wary individuals and thereby increase their cooperation to a level closer to that of low-wary individuals. The extent of a partner's generosity may also contribute to establishing cooperation. Generous partners were perceived as kinder and more trustworthy, and they prompted greater reciprocation (M. Greenberg & Bar-Tal, 1976; M. Greenberg & Frisch, 1972; Gross & Latane, 1974). Generosity by a partner might augment the effects of cooperative communication and make the prospect of future interaction all the more rewarding.

Study 1 examined how cooperation in interpersonal exchange might be influenced by the moderating effects of reciprocation ideology on two factors: statements of cooperative intent and expectations of future interaction. First, among high-wary individuals, cooperative statements were predicted to have a less positive influence, and uncooperative statements to have a more negative influence, than among low-wary individuals. Second, anticipated future interaction was predicted to increase reciprocation to a greater degree among high-wary persons than among low-wary individuals. In addition, partner generosity was predicted to increase the influence of cooperative communication on reciprocation.

Method

Subjects and Design

As part of a course requirement, 830 introductory psychology students (529 women and 301 men) were administered the Reciprocation Ideology Questionnaire (RIQ; Eisenberger, et al., 1987) along with a series of other questionnaires that took a total class period to complete. Of this pretest sample, 225 (142 women and 83 men) of those scoring in
the top third on both the creditor ideology and reciprocation wariness subscales of the RIQ, the bottom third on both scales, or the top third on one scale paired with the bottom third on the other scale, were selected for inclusion in the experiment proper. Several weeks later, these subjects participated in a Prisoner’s Dilemma game similar to those used by Pruitt (1968) and Eisenberger et al. (1987). On each trial, the subject and a confederate partner received equivalent amounts of money to divide between them. Cooperation was made beneficial by paying the receiver 1.5 times more than the sender gave.

The confederate partner’s statement of intent to the subject varied according to three conditions: (a) cooperative—the subject was sent a note promoting generosity by both partners in order to retain the maximum joint profit, (b) no communication—the subject was not sent a note, and (c) uncooperative—the subject was sent a note promoting low mutual aid as a matter of safety. A main effect for communication condition was predicted in which the cooperative communication would produce greater giving than the absence of communication that, in turn, would produce greater giving than the uncooperative communication. However, this effect was expected to be qualified by an interaction between communication and wariness, such that high-wariness subjects would show a reduced positive reaction to the cooperative communication and a heightened negative reaction to the uncooperative communication.

To influence expectations concerning the future length of the relationship, the subjects were informed that they would receive either two trials or seven trials in which they would exchange resources with their partner. It was expected that high-wariness subjects would be most affected by the future-interaction manipulation in the second exchange trial. At this point in the game, the high-wariness subjects expecting their final trial should give conservatively because of fear that their partner would exploit them by giving little and leaving them with no opportunity to retaliate. In contrast, high-wariness subjects expecting five additional trials should give more generously because of potential opportunities to redress such exploitation.

The confederates were either stingy, consistently donating 20% of their resources to the subject, or generous, consistently donating 80% of their resources. This allowed assessment of whether partner generosity would increase the influence of cooperative communication on reciprocation. Finally, the larger number of trials actually experienced by the subjects expecting seven trials allowed assessment of the changing influence of reciprocation wariness from the early stages of interaction to the later stages. It was assumed that high-wariness subjects would be especially cautious in the earlier stages of the interaction and that this effect might weaken as they gained more reliable information about the generosity of their partners.

In summary, we used a $2 \times 2 \times 3 \times 2 \times 2$ (Wariness × Creditor × Communication × Future Interaction × Partner Generosity) factorial design, with repeated trials. The use of a factorial design with more than two or three independent variables is often avoided because reliable four-way and five-way interactions may provide results that are difficult to interpret. However, if no higher order interactions are found, the utilization of multiple independent variables in a factorial design has the benefit of demonstrating the generality of the lower order effects across a variety of conditions.

Materials

Pretest questionnaire. The RIQ (Eisenberger, et al., 1987) contains 23 statements rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The 10 items measuring reciprocation wariness involve a fear that others would take advantage of one’s help (e.g., “I feel used when people ask favors of me”), a hesitancy to provide help unless asked (e.g., “You shouldn’t offer to help someone if they don’t ask for your help”), and a fear of the consequences of accepting help (e.g., “Asking for another’s help gives them power over your life”). The items measuring creditor ideology involve the endorsement of returning resources with greater value than those previously received (e.g., “Someone does you a favor, you should do even more in return”). Eisenberger et al. (1987) reported that the reciprocation wariness and creditor ideology scales form separate, unitary factors having high internal reliability (Cronbach’s alpha of .80 and .79, respectively), and a negligible relationship with scores on Crowne and Marlowe’s (1964) Social Desirability Scale (rs = .01 and .07, respectively).

Task materials. At the beginning of every trial, each subject received an envelope containing $1 in coins to divide with the confederate partner. Subjects recorded the amount of money they decided to send on sheets showing the effect of the experimenter’s multiplication of each gift by 1.5. The cooperative note (“Let’s send each other a lot of money, it’s what we have to do to make the most profit”), sent prior to the first exchange, stressed the advantage of mutual aid and was similar to that used by Lindskold and his colleagues (Lindskold et al., 1983; 1986b). The uncooperative note (“Let’s not send each other a lot of money, it’s safer that way”) emphasized a reluctance to engage in mutual aid. Following each gift from the confederate partner, the subject recorded the amount of the gift as well as the effect of the experimenter’s multiplication of the gift by 1.5.

Procedure

Six subjects at a time were led into a large room, seated at desks, and given an informed consent form. The form stated that they were to be involved in a study on decision making and would be paired with another person from the group with whom they would exchange money. Each subject was then sent to one of six small rooms connected to the central room. The experimenter entered each room and instructed subjects to use a printed form on each trial to record the current trial number, the total number of trials (two or seven), the amounts received for distribution by the subject and the partner, the amount given by the subject, and the total amount received from the partner after the experimenter’s multiplication by 1.5.

In the cooperative and uncooperative communication conditions, the experimenter stated that one of two partners, to be selected by a random draw, would have the option of sending a note to the other partner prior to the start of the exchange trials. The experimenter then asked the subject to pick one of two folded pieces of paper to determine which partner would have that option. Because both papers stated, “Other person sends note,” the confederate had the opportunity to send a note to the subject. The experimenter then left, returning two minutes later with an envelope containing either the cooperative or uncooperative note.

On each trial, the subject received $1 in change and decided how much money to give to the confederate. The experimenter would then leave the room with the subject’s gift and shortly thereafter return with a gift envelope from the confederate partner and an envelope for the next trial. The experimenter stated, “The other person has sent you ($0.20 or $0.80), multiplied by 1.5 makes it ($0.30 or $1.20),” and told the subject to write the amount received from the partner in the appropriate space on the record sheet and to put the partner’s gift in a cup holding the subject’s accumulated earnings. The experimenter prepared the subject for the next trial by supplying another envelope with $1 in change and stating that the confederate partner would also have $1 to decide about. The confederate partner’s gift remained constant throughout the two or seven exchange trials. After receiving their final gift, subjects signed a confidentiality form pledges not to reveal any information concerning the experiment.

Results and Discussion

Trial 1

All statistical tests in the first study are two-tailed. The first trial provided an opportunity to assess the effects of coopera-
tive and uncooperative communication on the initial exchange of resources between the partners. Consistent with previous findings (Lindskold et al., 1986a, 1986b), statements of cooperative intent evoked more giving. A 2 (wariness) × 2 (creditor ideology) × 3 (communication condition) analysis of variance (ANOVA) on the subject's first trial gift revealed a significant main effect for communication condition, $F(2, 213) = 58.1, p < .001$. Multiple comparisons, using Tukey's honestly significant difference test, revealed that the cooperative communication produced a greater average amount given than the absence of communication, which in turn produced a greater amount given than the uncooperative communication (all $p$s < .01, with the following means of the respective groups: 73.9¢, 56.2¢, and 32.8¢).

As may be seen in Figure 1, the preceding main effect of communication was qualified by the predicted interaction between communication condition and reciprocation wariness, $F(2, 213) = 5.30, p < .01$. For the low-warthy subjects, the cooperative communication produced greater giving than did the absence of communication, $t(213) = 5.50, p < .01$, but this effect did not occur for the high-warthy subjects, $t(213) = .95, n.s.$ Therefore, the effectiveness of the cooperative communication in increasing aid was strongly influenced by individual differences in reciprocation wariness.

The uncooperative communication condition decreased the amount given in comparison with the no communication condition, both among low-warthy subjects and among high-warthy subjects, $t(213) = 2.63, p < .01$, and $t(213) = 6.16, p < .01$, respectively. However, the high-warthy subjects showed a greater decrement of giving than did the low-warthy subjects, $t(213) = 7.84, p < .01$. Thus, both the cooperative communication and the uncooperative communication inhibited the help extended by the high-warthy subjects relative to the low-warthy subjects.

Considering the effects of wariness at each level of communication, high-warthy subjects gave less money than low-warthy subjects when receiving a cooperative note, $t(213) = 1.93, p = .05$, and gave a marginally significant lesser amount when receiving an uncooperative note, $t(213) = 1.77, p = .08$. In contrast, in the absence of communication, the high-warthy subjects gave more money than did the low-warthy subjects, $t(213) = 2.20, p < .05$. The latter finding is consistent with previously described results that showed that, in the absence of salient cues of possible exploitation, high-warthy individuals are more generous than low-warthy individuals (Eisenberger et al., 1987). No other main effects or interactions were statistically significant.

**Trial 2**

It was expected that the future-interaction manipulation would have its strongest effects for high-warthy subjects on the second exchange trial. High-warthy subjects expecting their terminal trial would grow conservatively, fearing that their partner would give them few resources and thereby leave them with no opportunity to retaliate. A repeated measures ANOVA on Trials 1 and 2 showed that the future-interaction manipulation did have its greatest effect on high-warthy subjects in the second trial, with a three-way interaction among reciprocation wariness, expected number of trials, and Trials 1-versus-2, $F(1, 177) = 6.18, p < .02$. Considering the second trial, a 2 (wariness) × 2 (creditor ideology) × 3 (communication condition) × 2 (expected trials) × 2 (generosity of partner) ANOVA revealed the predicted interaction between reciprocation wariness and the expected number of trials, $F(1, 177) = 8.25, p < .005$. As shown in Figure 2, simple effects tests showed that among high-warthy subjects the prospect of continued interaction resulted in more money being given than did the prospect of the interaction's termination, $t(177) = 2.09, p < .05$. In contrast, among the low-warthy individuals, the anticipated termination of the interaction produced a greater amount given than did the anticipation of continued interaction, $t(177) = 2.1, p < .05$.

Thus, high-warthy subjects responded favorably to the relative safety of anticipated long-term interaction, which would allow retaliation against opportunistic partners and would permit mutually beneficial aid with cooperative partners. In contrast, low-warthy individuals who expected the termination of the interaction gave more than those expecting a long-term interaction, possibly viewing the terminal trial as a final opportunity to maximize mutual benefits. The only other significant effect indicated by the ANOVA for Trial 2 was that, consistent with previous research (Eisenberger et al., 1987), subjects gave more to the generous partners than to the stingy partners, $F(1, 177) = 122.2, p < .001$.

**Trials 3–7**

The mean amount given on Trials 3 through 7 provided information on how reciprocity ideology influences generosity in more well established relationships. Only those subjects expecting to take part in all seven trials did, in fact, receive these
trials. Consistent with findings by Eisenberger et al. (1987), high creditors in the no communication condition gave more generously than did low creditors. A 2 (wariness) × 2 (creditor ideology) × 3 (communication condition) × 2 (generosity of partner) ANOVA revealed a significant interaction of creditor ideology with the communication conditions, \( F(2, 85) = 5.46, p < .01 \). The only other statistically reliable effect was the greater reciprocation by subjects to a generous partner, \( F(1, 85) = 100.6, p < .001 \).

As shown in Figure 3, simple effects \( t \) tests revealed that in the no communication condition (crosshatched bars), the high creditors gave significantly more than did the low creditors, \( t(85) = 2.81, p < .01 \); similarly, in the uncooperative communication condition (white bars), the high creditors were more generous than the low creditors to a marginally significant degree, \( t(85) = 1.93, p < .09 \). However, high creditors were not uniformly generous in that on receiving a cooperative note they gave a marginally significant lesser amount than did low creditors, \( t(85) = 2.01, p < .07 \). A cooperative note may have implied to high creditors that their partner was already inclined toward generosity and that overrewarding such a partner was unnecessary. A supplementary analysis revealed that the difference in giving between the high creditors and the low creditors in the no communication condition and in the uncooperative communication condition increased to only a statistically nonsignificant degree from the first trial to the seventh trial, respective \( r(85) = 1.12 \) and 1.29, ns. Therefore, although creditor ideology had statistically significant effects in later trials, we cannot conclude that the magnitude of these effects increased over trials.

Wariness no longer influenced giving on Trials 3 through 7. Recall that early in the exchange task (Trial 1), the cooperative communication increased the size of gifts given by low-wary subjects but not by high-wary subjects. Among low-wary subjects, the degree to which the cooperative communication produced greater giving than no communication decreased from Trial 1 to Trial 7, \( r(85) = 2.62, p < .01 \). Moreover, on Trial 7, as on Trial 1, the high-wary subjects continued to show no effect of the cooperative communication. Thus, the differential reaction to the cooperative note, produced by reciprocation wariness, decreased from early in the exchange task to later in the exchange task.

In summary, the results of the first study generally support the view that reciprocation wariness may inhibit the establishment and strengthening of interpersonal relationships. Students with high reciprocation wariness showed (a) a markedly reduced positive response to cooperative communication in a Prisoner's Dilemma bargaining task, (b) a greater negative response to uncooperative communication, and (c) an increased positive response to the prospect of long-term interaction.

Study 2

The inhibiting effects of reciprocation wariness on the development of interpersonal relationships, as studied in the laboratory, can be extrapolated to everyday life only with caution. In natural settings, interpersonal relationships often develop over a long period of time and may achieve greater strength than in controlled laboratory situations. Therefore, it is important to establish the ecological validity of the inhibiting effects of reciprocation wariness on the development of interpersonal relationships. Another possible constraint on the first study's conclusions is that the reciprocation ideologies may not be very different from other previously established personality constructs. The next series of studies addressed the ecological and discriminant validities of reciprocation ideologies.

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**Figure 2.** Mean gift to partner on Trial 2 as a function of reciprocation wariness and expected number of trials.

**Figure 3.** Mean gift to partner on Trials 3–7 as a function of creditor ideology and type of communication. (Uncoop = uncooperative communication; no comm = no communication; coop = cooperative communication.)
A variety of evidence suggests that people encourage and reward individuals who display positive dispositions toward them (M. Greenberg, 1980). In laboratory studies, holding constant the absolute amount of help, recipients returned benefits of greater value and expressed greater liking of the donor when (a) the donor appeared to behave generously by contributing a high proportion of her or his own resources (Gergen, Ellsworth, Maslach, & Seipel, 1975; Pruitt, 1968) and (b) such help appeared voluntary rather than either accidental (M. Greenberg & Frisch, 1972; Gross & Latane, 1974) or required by external constraints (Goranson & Berkowitz, 1966; Gross & Latane, 1974; Kiesler, 1966; Nemeth, 1970). Similarly, elderly women expressed more positive feelings toward friends with whom they were engaged in mutual give-and-take of a variety of resources (Rook, 1987).

Repeatedly returning resources of lesser value than previously received, as we would expect of high-wary individuals, may be viewed by most people as indicative of self-centeredness and selfishness. High-reciprocation-wary persons would create the impression that they are concerned almost exclusively with their own well-being, to the exclusion of the welfare of others. Creditors, in contrast, would seek to convey the impression of genuine interest and caring by returning extra help to individuals who could supply resources they valued highly, but they would be less likely to create positive impressions with those whose resources they did not value (Eisenberger et al., 1987).

An effective methodology for exploring the ecological validity of a personality construct involves comparing individuals' strength on the construct with trait descriptions given by observers who know the individuals well (Bem & Funder, 1978; Bem & Lord, 1979). One instrument for obtaining such descriptions is the California Q-set, which is composed of 100 diverse trait descriptions that the observer distributes along a dimension ranging from most characteristic of the target individual to least characteristic. The Q-set was originally designed for use by psychiatric professionals (Block, 1961/1978) and was modified into lay language by Bem and Funder (1978). A Q-sort generated by observers can be used to evaluate the ecological validity of behaviors demonstrated in laboratory situations or through self-reports using questionnaires (Bem & Funder, 1978; Bem & Lord, 1979).

In Study 2A, we related the strength of the wariness and creditor constructs, as obtained using the RIQ, to the Q sorts generated by roommates and good friends of college students. It was predicted that high-wariness individuals would be perceived as more selfish and self-centered than low-wariness individuals and would be generally viewed in a negative fashion. In addition, high creditors were predicted to create the impression, among those who knew them well, of being more caring and generous than low creditors and would be generally viewed in a positive fashion.

Study 2B provided an additional assessment of the ecological validity of the wariness construct, using a different target population and an alternative set of behavioral ratings. Students living in dormitories evaluated the helpfulness, approachability, and cooperativeness of the resident assistants who, as college employees, were responsible for aiding the students with their housing-related problems, for carrying out dormitory social programs, and for enforcing housing policies. Those resident assistants who are high in wariness, as determined by the RIQ, should be hesitant to extend help to the students they supervise and thus should create the impression of selfishness and lack of concern for the students' well-being. The prediction for high-creditor resident assistants is less clear. Some students might be perceived by creditor resident assistants as potential sources of valued resources, whereas other students would be seen as having no such value. Previous research indicates that creditors will be generous only to those individuals who can contribute resources they value (Eisenberger et al., 1987). Thus, high creditors might go out of their way to be helpful to some students at the expense of others, producing an overall average evaluation by the students.

Study 2C examined the differentiation of reciprocation wariness from creditor ideology, social goal orientation, and Machiavellianism. Although Eisenberger et al. (1987) found that the wariness and creditor ideologies formed independent factors, the correlation between the factors was not reported. If these constructs are strongly related, then their separate treatment would be inappropriate. Therefore, one purpose of Study 2C was to examine the degree of relationship between reciprocation wariness and creditor ideology.

Other extant constructs related to individual differences in choices made during Prisoner's Dilemma bargaining tasks might overlap conceptually and empirically with reciprocation wariness and creditor ideology. Research with experimental games suggests that individuals usually respond with one of three general social goal orientations: joint or collective gain (cooperation), personal gain (individualism), or one's own gain relative to that of others (competition; Deutsch, 1949a, 1949b).

Generally used for inferring social goal orientations are decomposed experimental games, in which the possible outcomes of a participant's options are presented without information concerning the other's options or actual choices. Because the participant cannot influence or be influenced by knowledge of the other's choices, decisions are assumed to directly reflect social orientations, free of immediate tactical considerations or reactions to the other's choices (Griestinger & Livingston, 1973; MacCrimmon & Messick, 1976; Messick & McClintock, 1968; Pruitt, 1967). Thus, social goal orientations refer to the preferred outcomes of social interactions.

A substantial majority of subjects are consistent over time in their adherence to the cooperative, competitive, or individualistic goal orientations (Kuhlman & Marshello, 1975; Kuhlman & Wimberley, 1976; Liebrand, 1984). Furthermore, there is increasing evidence demonstrating the ecological validity of individual differences in social goal orientations, as indicated by the Q-sort descriptions given by roommates of cooperative versus competitive participants (Bem & Funder, 1978; Bem & Lord, 1979) and by the affective nonverbal style that participants display in other contexts (Kuhlman, 1982).

High wariness might be thought to be related either to individualism or competitiveness, and creditor ideology to a cooperative goal orientation. We would argue, however, that reciprocation ideologies concerning the appropriateness and efficacy of returning help (i.e., wariness and creditor beliefs) may be distinguished from preferences concerning the distribution of rewards between oneself and a partner. A person might be highly
wary of accepting or returning aid from others independent of his or her preferences to maximize own gain, relative gain, or joint gain. Therefore, little relationship was predicted between the wariness and creditor ideologies and social goal orientation (cooperativeness, competitiveness, and individualism).

The general fear of being taken advantage of by others, embodied in the wariness construct, might be related to Machiavellianism (Christie & Geis, 1970). A considerable amount of research, reviewed by Christie and Geis, suggests that individuals differ systematically in their general disregard of conventional morality and others' well-being as they pursue personal goals. The expressed disinclination of high-warey individuals to accept or provide aid, and their stated distrust of others, suggests that high-warey individuals may simply be Machiavellians. However, the results of Study 1 and prior research (Eisenberger et al., 1987) suggest that high-warey individuals are concerned that others will take advantage of them, as opposed to the Machiavellian's desire to take advantage of others. Under circumstances that do not lead high-warey persons to infer that they are the target of manipulation attempts, they responded with equal or greater generosity than did low-warey subjects (Study 1; Eisenberger et al., 1987). Therefore, it was predicted that wariness would show little relationship to Machiavellian beliefs.

Method

Subjects and Design

In Study 2A, as part of a course requirement, 894 introductory psychology students enrolled in three introductory psychology classes were administered the RIQ along with a series of other questionnaires that took a total class period to complete. Of these subjects, 92 were randomly selected, and each was asked to schedule two informants who knew them well to come to the laboratory and describe them. The informants ranked the subjects on 100 descriptive traits, using the California Q-set (Bem & Funder, 1978; Bem & Lord, 1979; Block, 1961/1978). The ratings that the two informants gave each subject were averaged, and the resulting mean scores were correlated with the students' scores on the reciprocity-wariness and creditor subscales of the RIQ.

In Study 2B, 102 resident assistants were administered the RIQ early in the semester. Each resident assistant served as the college's live-in housing representative for one to two dormitory floors with 12 to 40 students. Near the end of the semester, students living in each dormitory filled out an evaluation form concerning their resident assistant.

In Study 2C, to evaluate the independence between reciprocity wariness and creditor ideology, the RIQ was administered to 712 students who were enrolled in three introductory psychology classes. Also, to assess the relationship between reciprocity wariness and Machiavellianism, another class of 265 students was administered the RIQ and the Mach-IV Scale, which is the Likert-type version of the Machiavellianism Scale (Christie & Geis, 1970). To evaluate the relationship between reciprocity wariness and social goal orientation, a subset of these students (n = 189) were administered a decomposed experimental game of the type used by Kuhlman and his colleagues (Kuhlman, Camac, & Cunha, 1986; Kuhlman & Wimberley, 1976) to measure the relative strengths of the cooperative, competitive, and individualistic orientations.

Procedure

In Study 2A, subjects were asked to schedule "two people who live in the area, who know you well, and who would be willing to come to this lab to describe you." The experimenter called these informants to confirm the appointments, telling them that they would receive a small fee of $1 for their help. When the informants arrived, they answered written questions concerning their relationship with the subject and the length of time they had known them. The informants then ranked the subject on the series of descriptive traits provided by the California Q-set.

The informants were given 100 cards, each containing a descriptive trait, and were asked to sort the cards according to how characteristic each description was of the subject. The informants were instructed to sort the cards into a nine-category asymmetrical distribution, ranging from least characteristic to most characteristic, with the following number of cards in the respective categories: 5, 8, 12, 16, 18, 16, 12, 8, 5. Such relative ranking of behavioral traits discourages halo effects and encourages subjects to be discriminating in their responses. The experimenter described the purpose of the Q-sort as an examination "of the ways people come across to those who know them." The informants were shown how to perform the Q-sort and were told that it took an average of 40 min to complete.

In Study 2B, the students completed the anonymous Residence Hall Environment Questionnaire given to all dormitory residents twice a year. The section of the questionnaire relevant to the present study was titled "Relationship with resident life staff" and contained five items regarding the students' evaluation of the resident assistant (RA). The wording of these items was as follows: "My RA is a positive influence on my floor;" "I would feel comfortable approaching my RA if I had a concern and feel that he/she would be responsive;" "My RA treats people fairly;" "My RA spends an adequate amount of time on the floor;" "My RA has actively reached out to get to know and interact with students on my floor;"

For Study 2C, the RIQ and the Mach-IV Scale were administered during class time. The Machiavellianism score was obtained by totaling the scores on the 20 five-point Likert scale items. These items incorporate preferred tactics for treating others (e.g., "The best way to handle people is to tell them what they want to hear"), beliefs about human nature (e.g., "The biggest difference between most criminals and other people is that criminals are stupid enough to get caught"), and morality (e.g., "All in all, it is better to be humble and honest than important and dishonest"; reverse scored). Christie and Geis (1970) reported a mean part-whole correlation of .38 for these items and provided extensive evidence for the construct's predictiveness in laboratory settings. To obtain measures of the relative strengths of the cooperative, competitive, and individualistic social orientations, Kuhlman et al.'s (1986) decomposed game procedures for group administration were followed. The subjects were told that they were playing with another "paired person," with whom no communication was allowed, and were given no information as to their accumulated outcomes or the paired person's choices. Nevertheless, they could see the direct consequences of each choice in terms of payoffs for themselves and their partners. Subjects were classified as cooperators, individualists, and competitors on the basis of their choice of joint gain, own gain, or relative gain, respectively, on at least six of the eight decomposed games. This categorization resulted in 64 cooperators, 42 individualists, 69 competitors, and 14 unassigned subjects.

Results and Discussion

Tests of directional hypotheses were one-tailed, on the basis of previous findings (Eisenberger et al., 1987; M. Greenberg, 1980) and the results of Study 1. In Study 2A, the 92 students provided a total 175 informants. Eighty-three of the students provided 2 informants, whose ratings were averaged, whereas 9 students provided only 1 informant. For the latter students, the single informant's scores were used. Almost all the informants...
described themselves as the students' friends (83%) or roommates (24%). These numbers add up to more than 100% because the categories were not mutually exclusive. To measure the agreement between the informants, correlations were computed between the informant Q-sort profiles for each subject. The correlations ranged from .14 to .80, with a moderate average correlation of .44 and a median of .47.

The students' wariness scores on the RIQ were correlated with the average ratings received by each student from the informants. Table 1 lists the items reliably related to wariness. The pattern of findings indicates that, as predicted, high-warly individuals were viewed as unsympathetic, guileful, blaming of others, selfish, unlikeable, condescending, socially unperceptive, and lacking in charm. Consistent with a concern over being trapped into unwanted interpersonal relationships, high-warly students were also viewed as basically anxious. Finally, high-warly individuals were characterized as seeing erotic overtures in social interactions, perhaps reflecting their suspicion that others want to take advantage of their sexual favors or reflecting their disinclination to move beyond sexual intimacy to form deeper emotional bonds.

As indicated in Table 2, creditors gave the impression of being sensitive, caring individuals who behave in a giving way to others, show warmth, are facially and gesturally expressive, are dependable, and are consistent in mood. Thus, high creditors and high-warly individuals produced quite dissimilar impressions on their roommates and friends.

In Study 2b, resident assistants with high reciprocation wariness were rated as unhelpful, unapproachable, and uncooperative by the students they supervised. Each of the five items concerning students' relationships with their resident assistant produced the predicted outcome. Specifically, there were reliable negative correlations of resident assistants' wariness with the following student evaluations: “Has actively reached out to get to know and interact with students on floor” (r = -.25, p < .01); “Positive influence on the floor” (r = -.28, p < .005);

<table>
<thead>
<tr>
<th>Item</th>
<th>r</th>
</tr>
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<tbody>
<tr>
<td>Behaves in a sympathetic or considerate manner.</td>
<td>.35***</td>
</tr>
<tr>
<td>Is guileful and deceitful, manipulative, opportunistic; exploits and takes advantage of people.</td>
<td>-.29***</td>
</tr>
<tr>
<td>Basically anxious; nervous, worries a lot underneath.</td>
<td>.23**</td>
</tr>
<tr>
<td>Extrapuntive; transfers or projects blame.</td>
<td>.21**</td>
</tr>
<tr>
<td>Has a clear-cut consistent personality.</td>
<td>.21**</td>
</tr>
<tr>
<td>Has a rapid personal tempo; acts quickly.</td>
<td>.21**</td>
</tr>
<tr>
<td>Behaves in a giving way toward others.</td>
<td>-.20**</td>
</tr>
<tr>
<td>Has a readiness to feel guilt.</td>
<td>-.20**</td>
</tr>
<tr>
<td>Arouses liking and acceptance in people.</td>
<td>-.20**</td>
</tr>
<tr>
<td>Would be disorganized under stress.</td>
<td>.20**</td>
</tr>
<tr>
<td>Is condescending in relations with others.</td>
<td>.18*</td>
</tr>
<tr>
<td>Socially perceptive of interpersonal cues.</td>
<td>.18*</td>
</tr>
<tr>
<td>Is personally charming.</td>
<td>.18*</td>
</tr>
<tr>
<td>Has a wide range of interests.</td>
<td>-.17*</td>
</tr>
<tr>
<td>Is calm, relaxed in manner.</td>
<td>-.17*</td>
</tr>
</tbody>
</table>

* p < .05.  ** p < .025.  *** p < .01.

Table 2
California Q-Sort Item Correlations With Creditor Scores

<table>
<thead>
<tr>
<th>Item</th>
<th>r</th>
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</thead>
<tbody>
<tr>
<td>Behaves in a giving way towards others.</td>
<td>.27***</td>
</tr>
<tr>
<td>Enjoys aesthetic impressions; is aesthetically reactive, e.g., appreciates or is motivated by works of art, beautiful music, drama, etc.</td>
<td>.24***</td>
</tr>
<tr>
<td>Is facially and/or gesturally expressive.</td>
<td>.22**</td>
</tr>
<tr>
<td>Has warmth; capacity for close relationships.</td>
<td>.20**</td>
</tr>
<tr>
<td>Has fluctuating moods.</td>
<td>-.20**</td>
</tr>
<tr>
<td>Has a readiness to feel guilt.</td>
<td>-.18*</td>
</tr>
<tr>
<td>Genuinely dependable and responsible.</td>
<td>.18*</td>
</tr>
</tbody>
</table>

* p < .05.  ** p < .025.  *** p < .01.

"Would feel comfortable approaching my RA if I had a concern and feel that he/she would be responsive (r = -.29, p < .005); "Treats others fairly" (r = -.21, p < .025); and "Spends an adequate amount of time on floor" (r = -.21, p < .025). In contrast, there were no reliable effects for the resident assistants' creditor ideology.

In summary, high-warly students were viewed as unsympathetic, inconsiderate, guileful, and manipulative by individuals who knew them well. Resident assistants who were highly warly were perceived as unapproachable, hesitant to develop closer relationships with students, and unresponsive to students' needs. Furthermore, high creditors were viewed by those who knew them well as generous, warm, facially expressive, and emotionally stable. However, the high-creditor resident assistants made no distinct overall impression on the students they supervised. High creditors may have believed that only some of the students they supervised were capable of supplying needed resources. High-creditor resident assistants would be expected to be helpful to students who could supply such resources, while avoiding interaction with those who could not. The two types of treatment might produce an overall average evaluation of high-creditor resident assistants by the students.

In study 2C, a negligible correlation (r = .00) was found between the reciprocation wariness and creditor ideology subscales, verifying the independence of these constructs. Wariness and creditor ideology were also found to show a minimal relationship with Machiavellianism and social goal orientation. The correlations of wariness and creditor ideology with Machiavellianism were .05 (ns) and -.07 (ns), respectively. A multivariate ANOVA, with the social goal orientations serving as the four levels of the independent variable and with the wariness and creditor scores serving as the dependent variables, did not approach statistical significance, F(6, 368) = .86, p = .53. Univariate analyses of the effects of social goal orientation on reciprocation wariness and creditor ideology similarly did not indicate any relationship, wariness, F(3, 185) = 1.08, p = .36; creditor ideology, F(3, 185) = .52, p = .67. Combined with previous results showing that reciprocation ideologies are independent of scores on the Marlowe–Crowne (1964) Social Desirability Scale (Eisenberger et al., 1987), the present results suggest that wariness and creditor ideology are conceptually and empirically distinct from Machiavellianism and social goal orienta-
tion. Furthermore, wariness and creditor ideology are independent of each other.

General Discussion

These findings indicate that the development of interpersonal relationships is differentially inhibited or enhanced by reciprocation ideologies. The first study confirmed previous findings that statements of cooperative intent generally strengthen cooperative exchanges (Lindskold et al., 1986a, 1986b). However, the relationship between communication and cooperation was strongly influenced by general beliefs concerning the risks entailed in responding positively to the overtures of others. Cooperative communication markedly increased the generosity of low-wary individuals. In contrast, consistent with findings that cooperation is inhibited by a fear of being taken advantage of (Insko et al., 1990), cooperative communication had little or no enhancing effect on the cooperative behavior of high-wary individuals. High-wary persons, who have a general fear of exploitation in interpersonal relationships, appear more apt than others to view promises of cooperation simply as manipulative ploys (cf., Stech, McClintock, & Moss, 1984).

High-wary persons also showed an exaggerated effect in the reduction of generosity that normally follows an uncooperative communication (Lindskold, Betz, and Walters, 1986; Tedeschi et al., 1980; Youngs, 1986). A threatened lack of cooperation should increase the salience of high-wary individuals' general suspicions concerning the manipulative intent of others, leading to extreme caution in the extension of aid (Eisenberger et al., 1987). The negative effects of both cooperative communication and uncooperative communication on high-wary persons' generosity suggest that such individuals are sensitized to perceive communications early in a developing relationship as motivated by attempts at exploitation.

The disinclination of high-wary individuals to respond positively to the cooperative overtures of others is matched by negative characterizations from those who know them well. Consistent with findings that positive feelings between friends depend on reciprocity (Rook, 1987), friends and roommates of high-wary students evaluated them as unsympathetic, inconsiderate, and manipulative. Moreover, students who lived under the authority of high-wary dormitory resident assistants evaluated them as unapproachable, hesitant to develop closer relationships, and unresponsive to student needs. In contrast, high creditors were evaluated by friends and roommates as warm, caring, and emotionally expressive. Thus, in comparison with the generally aloof behavior of high-wary persons, high creditors are responsive to individuals who can supply resources they desire.

Previously reviewed evidence indicates that people tend to encourage and reward individuals who display positive dispositions toward them. Actions by partners signifying that one is positively evaluated allows "individuals to invest their resources in reinforcing those stable dispositions in others that are maximally beneficial to themselves" (M. Greenberg, 1980, p. 5; see also: Brinberg & Castell, 1982; Eisenberger, Fasolo, & Davis-Lamastro, 1990; Heider, 1958; Jones & Davis, 1965; Organ & Konovsky, 1989; Schopler, 1970). High creditors' return of increased resources following their receipt of aid reinforces giving by the original donor (Blau, 1964) and increases the donor's inclination to be helpful in the future (cf., J. Greenberg & Cohen, 1982; Leventhal, 1976; Major & Adams, 1983; Reis, 1981). Whereas high-creditors' appearance as warm, caring individuals would encourage the strengthening of interpersonal relationships (Rempel et al., 1985), the perception of high-wary individuals as self-concerned and selfish would reduce others' inclination to supply social and material resources and would interfere with the upward spiral of reciprocal giving that strengthens interpersonal relationships (Gouldner, 1960).

Expected future interaction increased the return of aid by high-wary subjects and, as the reciprocation relationship became better established in the long-term condition, the effects of wariness lessened. The caution that wary individuals show in the initial stages of a developing social relationship may thus be ameliorated, to some degree, when future interaction seems assured. The expectation of long-term interaction would serve to encourage greater risk taking among high-wary individuals because there would be opportunities to redress possible injustices. Among low-wary individuals, in contrast, the prospect of the termination of interaction led to increased generosity. The tendency of low-wary individuals to trust their partners may prompt them to focus on the present time as an opportunity to reap the benefits of cooperation. For high-wary individuals, the fear of exploitation may outweigh any potential benefit that cooperation might hold in short-term relationships.

These results are consistent with several major views of trust that emphasize the belief that others will act kindly or honestly (Deutsch, 1973; Rotter, 1980). Our findings suggest basic individual differences in the development of such trust. High-wary individuals may require firmer evidence to establish assurance of the benevolent intentions by others (cf., Rempel et al., 1985), with verbal statements of good intentions producing suspicion. Observable, moderately cooperative behavior, performed repeatedly, may provide the major evidence of trustworthiness accepted by high-wary persons.

The high creditors showed greater generosity than did the low creditors to partners who had sent them no communication or had communicated an uncooperative intent. These results are consistent with creditors' belief that the generosity of others can be encouraged by the overcompensation of aid (Eisenberger et al., 1987; M. Greenberg & Westcott, 1983). In agreement with prior findings that high creditors failed to overcompensate those who were extremely generous to them (Eisenberger et al., 1987), high creditors gave less than low creditors to partners who had sent them a cooperative communication. Cooperative communicators may be viewed by creditors as already being convinced of the importance of mutual aid and, therefore, as providing little additional return for overcompensation.

Reciprocation wariness was found to be independent of Machiavellianism and social goal orientation. High-wary individuals were no more likely than low-wary individuals to favor the unscrupulous manipulation of others. Nor was wariness related to differential preferences regarding the distribution of resources among partners (joint gain, own gain, or relative gain). Rather, reciprocation wariness involves a fear of being taken advantage of by others, resulting in a withdrawal from social relationships. Although high-wary individuals responded to
the overtures of others with heightened caution and were perceived by those who knew them well as unsympathetic and inconsiderate, their behavior was not indiscriminately selfish. High-wary subjects were more generous than low-wary subjects if their partners made neither cooperative nor uncooperative overtures. Moreover, previous research indicated that high-wary individuals were more responsive than low-wary individuals to partners who provided them with minimal aid (Eisenberger et al., 1987). High-wary persons appear to be highly vigilant in their search for any evidence of exploitation and may incorrectly attribute manipulative motives to social overtures; they are more assured by the lack of persuasion attempts and wish to recompense those not giving the appearance of exploiting their relationship.

In conclusion, the results of these studies indicate that different reciprocation ideologies can have positive or negative influences on the development of interpersonal relationships. General beliefs concerning the risks of social indebtedness influence whether individuals respond to cooperative communications as manipulative plays or as promises to be fulfilled and whether they see short-term interactions as threats or as opportunities for mutual benefit. Reciprocation wariness interferes with the normal expression of interest in others that promotes the establishment and strengthening of interpersonal relationships. Creditors, on the other hand, give more than they receive to individuals who can supply the resources they seek, creating the positive valuation by others that strengthens social relationships.

Thus, depending on their ideologies with respect to reciprocation, individuals react to the norm of reciprocity in systematically different ways. High-wary individuals inhabit a social niche that provides protection against those who would exploit them, but at a cost to the development of strong interpersonal relationships. High creditors are more willing to accept the risks of responding generously to others in order to obtain the rewards of strengthened interpersonal relationships.

References


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