

EFFECT OF RESOURCE SIMILARITY ON SATISFACTION WITH EXCHANGE

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It was predicted that the amount of satisfaction following an interpersonal exchange will be higher when the resource given is similar to the one reciprocated, and lower when they are dissimilar. Interpersonal exchange situations were experimentally created in which 2 independent variables – the resource given by the participant and the resource received by him – were manipulated. Each participant was induced to give a confederate, upon the latter's bidding, a given 1 of the following 6 resources: love, status, information, money, goods, and services. The confederate then reciprocated with 1 of 2 predetermined resources – money or love. The hypothesis was supported when money was the resource of reciprocation. For love reciprocation internal analysis and an additional experiment indicated that the lower-than-expected satisfaction was affected by devaluation effect and the short time allowed for the exchange. Application of the findings is discussed.

Keywords: resource similarity, level of satisfaction, interpersonal exchange.

Gouldner's norm of reciprocity (Gouldner, 1960) and Homans' notion of "distributive justice" in social exchange (Homans, 1961) influenced the theoretical thinking, as well as the research in this area. Indeed, many studies of exchange behavior have paid attention to the amount reciprocated and to the differential effects of its ratio to the amount received, when reciprocation is in kind. It has thus been shown that a person likes those who like him and dislikes those who dislike him (Backman & Secord, 1959; Blumsberg, 1969; Lowe & Goldstein, 1970; Ossorio & Davis, 1966), tends to help people who previously helped him (Goranson & Berkowitz, 1966) and provides more rewards to donors who were generous with him (Pruitt, 1968).

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In the present investigation we explore the effects of similarity among the resources exchanged on the satisfaction derived from the transaction. This switch in emphasis from the effect of quantity to the effect of quality is based on previous work which will be briefly summarized.

A classification system of resources exchanged in interpersonal relations has been proposed by Foa and Foa (1972). The classification, which groups, as well as differentiates, interpersonal resources in a way that reflects similarities and differences in the behaviors associated with them, is based on two characteristics or coordinates, labeled particularism and concreteness. Six resource classes are specified: love, status, information, money goods, and services. "Love" is defined as an expression of affectionate regard, warmth, or comfort; 'status' is an expression of evaluative judgment which conveys high or low prestige, regard, or esteem; 'information' includes advice, opinions, instruction enlightenment but excludes those behaviors which could be classed as love or status; 'money' is any coin, currency, or token which has some standard unit of exchange value; 'goods' are tangible products, objects, or materials; and 'services' involve activities on the body or belongings of a person which often constitute labor for another" (Foa, 1971). The position of each one of the six resources plotted on the twodimensional taxonomy is presented in Figure 1.

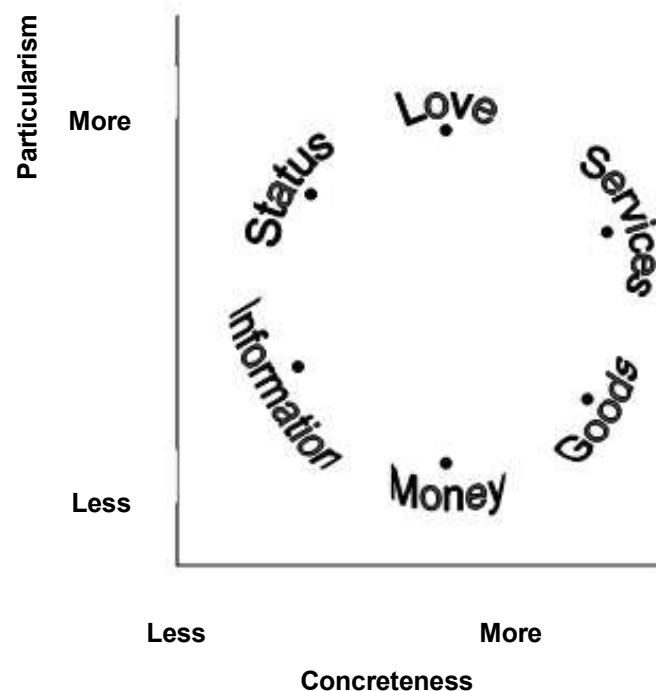


Figure 1: Positions of the six resource classes plotted on the particularism and concreteness.

Previous researchers (Turner et al., 1971) have shown that resources proximal in the order are: (1) Perceived as more similar, (2) more substitutable for one another, and (3) more likely to be preferred in exchange. In particular, it was found that preference for other resources was directly related to their proximity to the most preferred one. Extending this line of reasoning, we propose that less preferred exchanges will result in lower satisfaction.

This proposition was tested in an experiment in which: (a) the participant gave the other (a confederate) a predetermined resource; (b) the other reciprocated with a predetermined amount of a given resource, more or less similar to the one received; and (c) the degree of satisfaction experienced by the participant after the exchange had terminated was measured. Such an experimental paradigm raised the problem of how to induce participants to provide another person with a certain resource. Obviously, having the experimenter instruct the participant to do so would have introduced into the situation another exchange relationship, a latent but powerful exchange between the participant and the experimenter, the participant, doing him service, would expect to be reciprocated by getting status from the experimenter (McGuire, 1969). The following solution, which avoided the experimenter's intervention, was adopted; participants were encountered with a confederate, ostensibly another participant, and the latter one created a situation which would induce the participant to give her a specific resource. In all cases the interaction between the confederate and the participant was presented as due to the confederate's initiative, rather than to the experimental procedure. After the participant had provided the confederate with the expected resource, the latter reciprocated with 1 of 2 predetermined resources – either by expressing friendship (love) or by giving some money to the participant. This part was also contrived to appear as unrelated to the experimental situation. Finally, under the guise of beginning the “experiment”, the participant's satisfaction with the exchange was measured.

On the basis of Gergen's (1969) suggestion about reciprocation “in kind” and Foa's proposed order of interpersonal resources, the following predictions were made:

(1) For money reciprocation: (a) satisfaction will be lowest for participants who previously gave love; (b) it will increase gradually as one moves from love toward money in the order of resources; and (c) it will reach the highest degree for participants who traded money for money.

(2) For love reciprocation: (a) satisfaction will be lowest for participants who previously gave money; (b) it will increase gradually as one moves toward love in the order of resources; (c) reaching the highest degree for participants who gave love and were reciprocated with love.

METHOD

An interpersonal situation was experimentally created in which two independent variables – a specific kind of giving behavior and a specific kind of reciprocation – were manipulated. Each participant was led to a confederate, who was introduced as a fellow participant, 1 of the 6 following interpersonal resources: love, status, information, money, goods, services. The con-

federate reciprocated with 1 of 2 predetermined resources – love or money. This produced a 6 x 2 factorial design of 12 experimental groups. The dependent variable was the amount of general satisfaction experienced by the participant with respect to the exchange situation in which she had participated.

SUBJECTS

One hundred and thirty-one female undergraduate students, enrolled in general experimental psychology classes at the University of Missouri-Columbia served as participants and received credit for their participation. The data from 7 participants who, in the manipulation check described later, stated that they gave the confederate a resource other than the one they were expected to give, and from 4 participants who happened to have previous acquaintance with the confederate, have been deleted. The final sample, thus, included 120 participants. Each participant was randomly assigned to 1 of the 12 manipulations, forming 12 groups of 10 participants. The confederate, also a female, served in all 12 treatments; she was naive about the hypotheses of this study.

PROCEDURE

In all 12 treatments, the procedure involved three stages; in the first stage the confederate bidded for a resource, and the participant reacted to her; in the second stage, the confederate gave either affection or money to the participant; and in the last stage the satisfaction of the participant with the exchange was measured.²

Stage A The participant was led to give 1 of the 6 resources to the confederate by the latter's bidding. Twenty participants were exposed to each of the six biddings. In order to provide the confederate with an opportunity for her bidding, a 15-minute period in the waiting room was provided. While "waiting for the experiment to start," the participant and the confederate had an opportunity to interact with each other, and the confederate could do her bidding. Special attention was given to make the waiting period appear unrelated to the experiment, so that the confederate's behavior could be attributed to her own initiative, rather than to the experimental situation. The "waiting period" cover story was employed for four resources; in the remaining two, money and goods, the confederate's bidding occurred during a period of task performance, which was presented as unrelated to the main experiment. In order to check the success of the confederate's biddings, both the participant and the confederate were asked to describe their behaviors toward each other in a questionnaire which included all six resources. Our interest, of course, was only in the participant's description.

²Detailed description of the procedure and the various bidding situations are available upon request.

Stage B In the second stage the confederate reciprocated by giving one of the predetermined resources – love or money. The reciprocation occurred immediately at the end of the first stage and was also made to appear as the confederate's spontaneous behavior, unrelated to the experiment.

Stage C Following the resource exchange, the participant's postinteraction satisfaction was measured. This stage was introduced to the participant as an experimental procedure for measuring her feelings toward the other subject (confederate) in preparation for the experiment to follow. In order to overcome the effect of socially desirable responses, a procedure adopted from Jones et al. (1972) was applied. Participants were hooked to a machine which was described as taking physiological measurements like skin resistance, muscle tremor, blood pressure, etc. (In actuality, the machine was a dummy.) The participants were informed that the degree of their emotionality, and especially their feelings toward people, could be detected accurately by the machine and that the experimenter intended to use it to determine their feelings toward the other participants. However, when the machine was operated the participants were also asked to state their feelings towards their partner on a rating scale, to see whether they were able to be as accurate as the machine. The participants were asked to react to statements – described below – which were presented successively on a memory drum by stating the intensity of their feelings on a scale.

INSTRUMENTS

For Testing the Manipulation In order to check the success of the confederate's biddings, participants and confederate filled out a questionnaire administered immediately after the completion of the first stage of the experiment. The questionnaire included six statements, one for each of the six interpersonal resources. The participants were asked to indicate, on a 5-point scale that followed each statement, the degree to which their behavior corresponded with the one described in the statement.

Measurements of Experimental Effect After interaction was completed, the participant was hooked to a dummy machine, presented as capable of measuring feelings, made up of an electrical control board, a polygraph, and a memory drum. The participant was asked to mark on a 6-point scale her reactions to questions which appeared sequentially, one at a time, on the memory drum. The questions used were: (1) How satisfactory was your interaction with the other participant? (2) How fair was she with you? (3) How concerned were you with your partner's behavior? (4) How unjust was she with you? (5) How impartial was your partner with you? (6) How did you find her as a person? The six items were originally intended to tap three distinct aspects of posttransaction feelings: satisfaction proper (item 1); attraction for the partner (items 3 and 6); and fairness of

the exchange (items 2, 4, and 5). A preliminary analysis showed, however, that the three groups of items tended to scale together and also behaved similarly with respect to the experimental manipulations. The six items were thus combined into a single satisfaction score, obtained simply by summing the points for every item.

RESULTS

MANIPULATION CHECK

Before examining the data relevant to the hypothesis, it is appropriate to consider evidence on two procedural questions: (a) Was the confederate bidding effective in obtaining the intended resource? (b) Were the amounts of resources exchanged similar across different experiment conditions?

On termination of the first stage, the participants were administered a questionnaire regarding their behavior towards their partner, indicating how much of each resource they had given her. These data are presented in Table 1. Each row indicates the means obtained for the six resources following a particular resource bidding. In the diagonal cells the resource bid for is identical with the one given by the participant. The means in these cells are always the highest for the

TABLE 1
PARTICIPANT'S PERCEPTION OF HER GIVING OF RESOURCES

<i>Resource bid for by Confederates</i>	<i>Mean Amount of Resource given by Subject</i>						
	<i>Love</i>	<i>Status</i>	<i>Information</i>	<i>Money</i>	<i>Goods</i>	<i>Services</i>	<i>Total</i>
Love	4.8	4.0	3.0	1.8	2.3	3.3	19.2
Status	3.2	4.7	3.5	2.3	2.4	2.9	19.0
Information	3.7	3.6	4.8	2.0	2.1	3.3	19.5
Money	2.9	2.9	2.8	4.4	3.0	3.1	19.1
Goods	3.1	3.3	3.0	3.0	4.5	3.4	20.3
Services	3.5	3.1	3.2	2.3	2.6	4.8	19.5

respective row and column, thus indicating that, in general, the confederate succeeded in eliciting from the participant the expected behavior. Resources other than the one bid for were also perceived as given but to a lesser extent, and particularly so for resources more dissimilar from the one demanded: means tend to decrease as one moves away from the diagonal cell. To expect zero-frequencies in the non-diagonal cells would have negated the very notion of structure among resources. Resources are interrelated precisely because similar ones tend to appear jointly in the same behavior: one is unlikely to give love without also giving status and/or services.

Previous researchers have shown that satisfaction varies with the amounts exchanged. Therefore, in an investigation concerned with the effect of quality, it is important to control the quantities exchanged; otherwise, any eventual difference in satisfaction found would be open to the alternative explanation that it resulted from quantitative rather than qualitative, variation

across the experimental situations. The amounts for the various resources given to the confederate – as perceived by the participant – are given in the diagonal cells of Table 1; in these cells the scores are about the same, and no significant differences were found among these means. It seems, therefore, that on the average participants in different experimental conditions provided equivalent amounts of the respective resources. Furthermore, total amount of resources perceived by participants as given to the confederate during the various bidding situations are similar and no significant differences were found (Table 1, last column).

SATISFACTION WITH EXCHANGE

It was hypothesized that satisfaction in an exchange situation depends on the proximity or similarity between the exchanged resources. Participants who were reciprocated by a resource identical with or similar to the one they had given would be more satisfied than those reciprocated with a distal resource. Table 2 presents the mean satisfaction obtained in the 12 exchange situ-

TABLE 2
MEAN SATISFACTION OF PARTICIPANTS FOLLOWING EXCHANGE

<i>Resource received by participants in Reciprocation</i>	<i>Resource given by the participant</i>							
	<i>Love</i>	<i>Status</i>	<i>Infor- mation</i>	<i>Money</i>	<i>Goods</i>	<i>Services</i>	<i>All Resources</i>	
<i>Money</i>	25.5	26.3	27.4	27.8	29.9	26.3	27.2	
<i>Love: all participants</i>	27.6	26.8	29.5	23.4	28.3	28.5	27.4	
<i>Love: low-involvement participants</i>	29.4	27.0	28.5	22.6	27.5	27.3	27.1	
<i>Love: high-involvement participants</i>	25.8	26.3	31.0	25.3	30.2	30.2	28.1	

ations. The first row gives the degree of satisfaction experienced by participants who were reciprocated with money. As predicted, those who had given love to the confederate and received money from her were the least satisfied. The amount of satisfaction increased as the resource given by the participants became more proximal, in the order, to the resource – money – reciprocated by the confederate. The highest satisfaction was, however, experienced by participants who provided the confederate with goods, rather than by those who gave her the neighboring resource of money. Coxe-Stewart Trend test indicated that the obtained trend of post-interaction satisfaction was significantly close to the expected one ($z = 3.74, p < .01$). Moreover, the groups which presented the lowest and the highest degree of satisfaction, i.e., love-money and goods-money, were found to be significantly different ($U = 18, p < .01$, one-tailed by Mann-Whitney U-test).

Mean satisfaction scores when the resource of reciprocation was love are given in the second row of Table 2. As predicted, the lowest satisfaction was experienced by the group which provided the confederate with money. Then satisfaction increased for those who gave more particularistic resources. However, participants who provided the confederate with love or status and received love in return, showed less satisfaction than expected; in fact, they were less satisfied than participants who gave any other resource, except money.

FACTORS REDUCING SATISFACTION

Two factors can be suggested which may have contributed to the participant's low satisfaction when she received love in reciprocation for her giving of love or status: (a) By bidding for these particularistic resources, the confederate lost value as a potential source of friendship; (b) the relatively short time – about 15 minutes – allotted for the confederate- participant interaction was not sufficient to permit a satisfactory exchange of love. The devaluation effect was tested by internal analysis of the data; the influence of time was investigated in an additional experiment.

Devaluation Effect It is proposed that the very fact that the confederate bidded for love and status devalued her in the eyes of the participant as a potential source of particularistic resources and therefore, the love she later provided was not valued by the participants. If this reasoning is correct, one would expect that the devaluation effect would be stronger in participants for whom the exchange was more relevant and important than for those who were less involved in it. To test this possibility, participants who were reciprocated with love were separated into two groups: Those who indicated that they gave above-the-median (according to the manipulation-check questionnaire) constituted one group, which was labeled "high-involvement". The remaining participants made up the "low-involvement" group. The mean satisfaction scores for this latter group appear in the third row in Table 2 and those for the first group are given in the next row. The results obtained for the "low-involvement" participants confirmed the original hypothesis: these participants were most satisfied following an exchange of love-love and least satisfied when the resources exchanged were most distal, money and love. The difference in the level of satisfaction between these two exchange conditions is significant ($p < .02$, by Mann-Whitney U-test). However, the level of satisfaction experienced by "low-involvement" participants who exchanged status for love remained relatively low. Apparently, the confederate's bidding for this particular resource depreciated her to such an extent that the value of her reciprocation could not be restored. In "high-involvement" participants, on the other hand, satisfaction was lowest when the participant gave either money or love: in the first case because the exchange of money with love was inappropriate; in the second case because of the devaluation effect; when neither of these factors operated, i.e., for the other resources, satisfaction was higher.

To further check the devaluation effect, the same internal analysis was also done for money reciprocation, in the expectation, of course, that in this condition no devaluation would occur since money is the least particularistic resource; its value does not depend on the person who gives it. Here, no significant differences in satisfaction between the two groups were found. The contrasting results of the internal analysis for love and money reciprocation appear to support the view that the devaluation effect is specific to particularistic resources; in fact, it is a manifestation of the particularistic dimension.

Effect of Time The possibility that length of interaction could influence satisfaction in exchanges of love but not in monetary transactions was tested in another experiment; it consisted essentially in a replication of the previous love-love and money-money exchanges but with one difference: half the participants were given more time for the interaction, 25 minutes, instead of 15 minutes, as in the first investigation; for the other half the allotted time remained 15 minutes.

It was expected that longer time would result in higher satisfaction in love exchanges but not in money exchanges. If longer time is available, one may give more love, so that satisfaction increase may result from the higher quantity of resource received (Worthy et al., 1969), rather than from time effect. To avoid this confounding effect the number and content of the love messages provided by the confederate were kept identical in the two time conditions; when interaction lasted 25 minutes the remaining time was filled by neutral, non-love messages interspersed in the love communication. Twenty female undergraduate students served as participants and were randomly assigned to 1 of the 2 interactions, love or money. Each participant served as her own control, by participating twice in the short and long interaction with a different confederate. The two confederates were randomly assigned to the situations.

The participants' mean satisfaction scores following the short and long exchange situations are given in Table 3. As expected, longer time resulted in significantly higher satisfaction when the resource exchanged was love ($t = 2.82, p < .01$). Time available did not, however, influence satisfaction in money exchange.

TABLE 3
MEAN SATISFACTION OF PARTICIPANTS FOLLOWING SHORT AND LONG EXCHANGES

<i>Resources given and Reciprocated</i>	<i>Length of Exchange</i>		<i>D</i>
	<i>Short (15 mm.)</i>	<i>Long (25 mm.)</i>	
<i>Love-love</i>	27.2	29.1	-1.9**
<i>Money-money</i>	31.0	31.2	-0.2

*Note: ** $p < .01$, one-tailed test.*

DISCUSSION AND CONCLUSION

Previous work based on Homans' (1961) "distributive justice" and on Adams' (1965) equity notion has shown that inequity feelings can be created by varying the *amount* of the exchanged resource. Results gained in the present study indicated that feelings of inequity may follow not only inappropriateness in the amount of reciprocation, but also an inappropriate kind of reciprocation: resources more distal in the order are less appropriate for exchange. Satisfaction was indeed found to be lowest when the resources exchanged were most dissimilar – love and money – and to increase as the transaction involved progressively more similar resources. Difficulties, however, arose with regard to the exchange providing the highest satisfaction: money was most satisfactory in exchange for goods, rather than for money; love-love transaction resulted in highest satisfaction only for low-involvement participants. Let us consider the problems raised by these results.

For which resource does money constitute appropriate reciprocation? An answer to this question can hardly be attempted without considering the institutional situation in which the exchange takes place. Money is appropriately exchanged with money when one repays a debt, with information when one is charged registration fees for a course, with goods when buying in a store, and with services when one goes to the hairdresser. Between casual acquaintances, such as the participant and the confederate, reciprocating with money for goods received appears an acceptable form of exchange; one is, however, unlikely, in real life, to return the money received within half an hour, as it happened in this experiment; the inconsistent behavior of the confederate in asking for money and then returning it may have contributed to lower the participant's satisfaction with this type of exchange. Participants who expressed friendship (love) or esteem (status) for the confederate upon the latter's bidding and received love in return were less satisfied than expected. These results may reflect a basic difference between the reciprocation of particularistic (love) and no-particularistic (money) resources: by bidding for love or status, the confederate may have devalued herself as a potential source of these particularistic resources. Receiving love from a person who herself needs it so much is apparently less satisfying. More generally, it seems that the value attributed by people to reciprocation with love depends not only on what is reciprocated but also on who is giving the resource. Indeed, the devaluation affect was weaker for the "low-involvement" subjects who related to the exchange situation in a less particularistic manner.

The time needed for processing inputs of resources constitutes an additional factor accounting for the unexpected results obtained for the exchange of particularistic resources. Secord and Backman (1964) noted that the development of a friendship requires time. Possibly, the "high-involvement" participants started to develop a "real" particularistic relationship with the confederate. This process was cut short by the experimenter. The confederate, for her part, also did not give any indication that the relationships would continue or that other opportunities for establishing friendship, as well as for repayment and restoration of equilibrium,

would be available. Hence, the more the participant became involved in the relationship, the more of an increase was found in her feelings of inequity and dissatisfaction. However, as shown in the second experiment, when the interaction was prolonged, the exchange of friendship became more meaningful, the credibility of the confederate as a source of friendship was restored, the relationship was balanced, and satisfaction experienced by the participants increased accordingly.

The applicability of resource theory to problems such as urban life, racial relationships, and labor disputes has been elsewhere discussed (Foa, 1971; Foa & Donnerwerth, 1971; Foa et al., 1972; Turner et al., 1971). The following discussion will focus on the application of the specific results of this study to family relationships (though it can be also detected in marital relationship, etc.): children who are in need of love often impose on their parents continuous demands for toys; however, after receiving the "desired" toy, it seems that the child could not care less about it, and the parents are confronted with new demands. Our results suggest that the child, while in need of a particularistic resource, tries to substitute it with a non-particularistic one – goods. Since these two resources are different in nature, and relatively distal from each other, their substitution value is low. Consequently, the child remains unsatisfied, and the demanding pattern recurs.

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