

1974

# The outcomes and effectiveness of two self-disclosure techniques

Morgan, Ross Noel

---

<http://knowledgecommons.lakeheadu.ca/handle/2453/432>

*Downloaded from Lakehead University, Knowledge Commons*

LAKEHEAD UNIVERSITY

THE OUTCOMES AND EFFECTIVENESS OF  
TWO SELF - DISCLOSURE TECHNIQUES

by

ROSS NOEL MORGAN

A THESIS

SUBMITTED TO THE FACULTY OF ARTS  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF ARTS

DEPARTMENT OF PSYCHOLOGY  
THUNDER BAY, ONTARIO, CANADA

APRIL, 1974.

## TABLE OF CONTENTS

	Page
ABSTRACT.....	i
ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	iv
INTRODUCTION.....	1
METHOD.....	9
Subjects.....	9
Design.....	9
Apparatus and Materials.....	10
Procedure.....	11
RESULTS.....	15
Between Groups.....	17
Question Effects.....	18
DISCUSSION.....	20
REFERENCES.....	28
LIST OF APPENDICES.....	33

## ABSTRACT

It has been shown that there is a dyadic effect in regard to self-disclosure. This dyadic effect refers to the fact that the more one says about one's self the more another person is likely to say about their self. Two different techniques for creating this dyadic effect have been demonstrated. These techniques are modelling and using self-disclosure as reinforcement. The present study compared the effectiveness of these two techniques in eliciting self-disclosure. Sixty first year psychology students were randomly divided into four groups: contingent reinforcement, non-contingent reinforcement, modelling, and control. The contingent reinforcement group received a prepared self-disclosure, from the experimenter, every time a subject disclosed. The non-contingent reinforcement group received the disclosures after a subject had a chance to disclose independent of whether or not the subject actually disclosed anything. The modelling group received disclosures before every question. The control group received no disclosures. It was hypothesized that the procedures in the reinforcement and the modelling groups would elicit more self-disclosure than the control group. It was also hypothesized that the contingent reinforcement group would

show more self-disclosure than the modelling group. The non-contingent reinforcement group was a control group for the modelling group. The amount of disclosure given in both of these groups was equal.

It was found that there was more disclosure in the modelling and non-contingent groups than in the contingent reinforcement and control groups. No differences between the modelling and non-contingent reinforcement groups were found. Various possibilities as to why these findings occurred are proposed.

## ACKNOWLEDGEMENTS

I wish to thank sincerely the members of my advisory committee, Drs. J. Evans and H. McLeod, for the experience, support, and skill they made available to me in a patient, constructive, and generous manner. I would also like to thank Mr. G. Coates for his assistance with my apparatus and his knowledge of electronics.

R. N. Morgan

LIST OF TABLES

	Page
Table 1 A Summary of Analysis of Variance on Repeated Measures of Self-Disclosure.....	16
Table 2 Multiple Comparisons Between Groups.....	17
Table 3 Multiple Comparisons of Question Means.....	19

## INTRODUCTION

Self-disclosure refers to the revealing of one's self, that is the revealing of one's thoughts and feelings, to other persons. The idea of self-disclosure was possibly introduced by Lewin (1936) who thought that the typical American is quite willing to reveal a large part of his self to others whereas a German is more reluctant about engaging in self-disclosure. Lewin's theorizing was later verified empirically by Plog (1965).

Jourard (1964) has been largely responsible for the initiation of empirical research regarding self-disclosure and he introduced the notion of the self-disclosure dyadic or reciprocity effect. The self-disclosure dyadic effect refers to the notion that the more one says about one's self, the more another person is likely to say about their self. This dyadic effect has been found in experimental studies by Savicki (1972), Powell (1968), Drag (1969), Truax and Wittmer (1971), Vondracek and Vondracek (1971), and Certner (1971). Correlational studies have also produced similar outcomes. Jourard (1959) measured the self-disclosure of nine female nursing instructors; the amount disclosed correlated highly with the amount of disclosure received. Jourard and Landsman (1960) replicated this finding using nine male graduate students. Levinger



and Senn (1967), and Jourard and Richman (1963) provided further evidence to support the existence of a self-disclosure dyadic effect. But, there have been unsuccessful attempts (Fuller, 1971; Hays, 1972) to demonstrate the self-disclosure dyadic effect.

Concepts similar to self-disclosure have been researched and discussed using different terms. Examples of terms suggesting something similar to self-disclosure are: 'verbal accessibility' (eg. Polansky, 1965), 'social accessibility' (eg. Rickers-Ovsiankina, 1956), and 'transference' and 'counter-transference' in psychoanalysis. Even confession in the religious sense is similar to the concept of self-disclosure. Much research concerned with self-disclosure has been involved with the development of social penetration theory. Altman and Taylor (1965) in discussing social penetration theory wrote:

Social penetration refers to the dynamic, temporal changing complex of interpersonal events which occur in the course of development of an interpersonal relationship. These events involve overt interactions of a cognitive, affective and behavioral type which vary in properties of reciprocity, quantity (breadth) and quality (depth). Accompanying these overt events are a series of internal ones-cognitive-perceptual model building, evaluative/emotive and behavioral intention processes [p. 2].

Self-disclosure can be viewed as an overt event.

Social penetration theory attempts to show how interpersonal relationships develop.

Self-disclosure has implications regarding a successful counselling or psychotherapeutic relationship. Patterson (1958), who proposes a client-centred approach, feels that when an interviewer expresses his opinion he aids in creating a feeling of openness in the counselling relationship.

Rogers (1970), the originator of Client-Centred Therapy, believes group therapy's process involves getting people to discuss their feelings and emotions freely. He feels that when people do this a climate of mutual trust and freedom develops and that each member moves toward greater acceptance of his total being and gains awareness of himself. Rogers also feels openness on the part of a therapist in a one to one situation is important. He believes that the therapist should be genuine and the more genuine he is the more helpful it will be. This means that the therapist needs to be aware of his own feelings and not present an outward facade. Being genuine also involves the willingness to be and to express in your own words and behavior, your thoughts and feelings.

Glasser (1965), the originator of Reality Therapy, feels that a therapist must be willing to discuss some of his own struggles so that the patient will be able to see that it is possible, though sometimes difficult, to

fulfill one's needs without depriving other people from fulfilling their needs. Self-disclosure on the part of the therapist serves as an example for the client.

Jourard (1971a) believes that the aim of psychotherapy is to promote free and honest talk which he refers to as authentic behavior. Jourard believes he becomes closest to eliciting and reinforcing authentic behavior in a patient by manifesting it himself. He summarized this notion by writing: "Behavior begets its own kind [p. 142]." Jourard in his latest book, Healthy Personality (1974), restates his belief that honest disclosures to others helps create authentic behavior and adds that authenticity is a sign of healthy personality and therefore is a means of achieving healthy personality growth.

Mowrer (1964) also believes self-disclosure to be therapeutically useful and agrees with Jourard regarding the reciprocity effect of self-disclosure. Mowrer wrote that "a satisfactory degree of openness, with another, is not achieved unless there is confession and free communication both ways [p. 102]."

Different techniques have been proposed for eliciting the self-disclosure phenomenon. One is the reinforcing of a subject's self-disclosure with the experimenter's own self-disclosure. The study by Powell (1968) is

exemplary of this technique. Powell reinforced either positive or negative self references with approval, restatement, supportive statements, reflective statements, or open disclosure about the pertinent topic. The subjects were told that the interviewer was studying how people think and feel about themselves. Honest disclosure from the interviewer was found to produce increments in the emission of positive and negative self references. This coincides with Worthy, Gary, and Kahn's (1969) conclusion that self-disclosure does seem to function as a social reward.

Another technique was used by Drag (1968), McNeal (1971), and Jaffe (1969). These investigators used a self-disclosing model. Forty unmarried female subjects from an introductory psychology course were used by Jaffe (1969). In her experiment, subjects were chosen from an original group of 80. Subjects were matched in regard to self-disclosure using a 40 item disclosure questionnaire (Jourard, 1971b) and were assigned to one of four different groups. In all groups, twenty topics were stated and after each statement the experimenter expressed her feelings and then allowed the subjects to verbalize their feelings. In the first group the experimenter disclosed at the most

20 seconds and in the second group a minimum of 60 seconds. In the third group the first half of the topics were discussed for a maximum of 20 seconds and the rest for a minimum of 60 seconds. The fourth group was the same as group three except the times were reversed. A positive correlation was found between length of time the experimenter disclosed and the duration of the subject's disclosure. Jaffe also found a significant general increase in the number of topics the subjects indicated they would be willing to discuss beforehand. This effect occurred with all four groups. Klepper (1971) failed to replicate these studies using a population of 75 alcoholics. He suggested that "short-term modelling techniques may be of dubious value for poor prognosis patients who would probably require more intensive learning procedures p. [564B]."

In producing a dyadic effect, a change in behavior has been produced. The second person is disclosing more information about himself than he would if the first person had not disclosed about himself. Which is the most efficient technique of eliciting self-disclosure, the reinforcing or the modelling technique, has never been determined. Both modelling and reinforcement techniques have been shown to be effective in changing

an individual's behavior (Bandura et al., 1961).

Bandura (1965) has proposed that modelling procedures are likely to be most effective in situations where the required response is a completely novel one. Bandura has shown that reinforcement procedures are the most appropriate for changing the frequency of a response that is already available to the subject. It was hypothesized that self-disclosure is not a novel response for male college students. It seems to be a response that is potentially in the repertoire of most university students. Consequently, the present author proposed that using self-disclosure as a reinforcer, if an effective one, would be more successful in promoting self-disclosing remarks than would a modelling technique.

Since Fuller (1971) and Hays (1972) were unable to demonstrate the self-disclosure dyadic effect, there is some equivocality as to whether the effect actually exists. So, one purpose of the present study was to see if the self-disclosure dyadic effect can be replicated. If in fact this effect could be demonstrated, a second purpose of the present paper was to determine the effectiveness of a modelling strategy of interviewer disclosure as compared to the effectiveness of a reinforcement strategy in regard to eliciting subject self-disclosure.

Four different groups of subjects were used. The contingent reinforcement (CR) group received the interviewer's disclosure only in response to a given disclosure to a particular question by a subject. The non-contingent reinforcement (NCR) group received the experimenter's disclosure after each request for disclosure independent of whether or not the subject had disclosed anything. The modelling (M) group received the experimenter's self-disclosure before they were asked to give their disclosure and the control (C) group never received any disclosures.

It was hypothesized that the CR and M groups would elicit more self-disclosing statements than the C group. It was also hypothesized that the CR group should elicit more self-disclosing statements than the M group if in fact self-disclosure is a social reward. In the past it has been assumed that receiving self-disclosure is rewarding but there is doubt as to whether it is reinforcing for everyone to receive another's self-disclosure. Walker (1973) found self-disclosure to be rewarding for women but not for men. The NCR group was introduced as a control for the total amount of disclosing by the experimenter and no predictions were made in regard to this group.

## METHOD

### Subjects

Sixty-four male volunteers were recruited from two introductory psychology classes. The data from four subjects were not used. Because of language differences the experimenter could not communicate well enough with three of the subjects and the data from a fourth subject were not usable because of a cassette malfunction. This left a total of sixty subjects. Since the experimenter is a male, only male subjects were used so as not to create uneasiness on the part of the subjects or experimenter when personal matters were discussed. Vondracek and Vondracek (1971) and Certner (1971) failed to find any evidence that the sex of the experimenter or subject affected disclosure in any systematic manner. But, as already mentioned, Walker (1973) found that there can be sex effects in regard to self-disclosure. So, any generalizations arising from the present study should be limited to male interviewers and male clients.

### Design

The design was a randomized groups design with repeated measures and fifteen subjects in each group. The between subjects factor was the different groups and the within subjects factor was ten different questions.



### Apparatus and Materials

The experiment took place in an approximately 10' by 7' room without windows and a high ceiling. The only furniture in the room was a desk and two chairs on opposite sides of the desk. The walls were bare except for a small shelf behind the experimenter with books on it. There was a typewriter on the desk and a microphone on one side of the desk. The microphone was pointed toward the chair the subjects used. A sheet of paper depicting the instructions, the questions (See Appendix I), and the random order of question presentation was also on the desk in front of the experimenter's chair. It was held by the experimenter so the subjects could see the paper but not what was written on it.

There was an auxilliary room adjoining the experimental room. A chip dispenser, a small cardboard carton, was situated in this room. There were four chips which were small plastic cylinders with one of four markings, CR, NCR, M, or C. An Ampex Micro 70 Cassette Recorder plus magnetic cassettes were also in this room. A hole had been drilled through the wall for the microphone cord to be put through to the experimental room.

Other materials included an adaptation of Haymes technique for measuring tape-recorded self-disclosures

(See Appendix II) and a copy of the predetermined disclosures of the experimenter (See Appendix III). The experimenter's disclosures were genuine disclosures.

### Procedure

Male volunteers were recruited from two introductory psychology classes. The instructions were given to the subjects as they sat across a desk from the experimenter and were as follows:

In this experiment you will be requested to give your views on ten topics. Your answers will be tape-recorded (the microphone was pointed out) but will be kept confidential. The questions will be on topics such as drugs, religion, and your personal interests and opinions. If you do not wish to discuss such personal topics with me please tell me now.

After these instructions the experimenter excused himself and went to an adjoining room where the recorder and chip container were situated. Subjects were then assigned randomly to groups by drawing a chip from the container which indicated one of the four groups. The chips were drawn without replacement until all four had been drawn and then all four chips were returned and this process was repeated for the following four subjects. After assigning a subject to a group the experimenter inserted an appropriately marked cassette into the recorder and the recorder was switched on. The experimenter then returned to the interview room, and said, "Now realize

these are your opinions. I am not here to judge them; no opinion is right or wrong."

All subjects were asked the set of prepared questions in a random order determined by a table of random numbers. Only in the CR group was the giving of the experimenter's disclosure on that topic contingent upon the subject's disclosure. The NCR group received the experimenter's disclosure after every question and the disclosure was not contingent on the subject's disclosing. The M group received disclosures before each question was asked and the C group did not receive any disclosures, only the question were asked. The experimenter's disclosures were given verbatim as much as possible. When it appeared as if the subject had finished his disclosure the experimenter said 'okay?' as if to verify this, in all four groups. Note that the subjects in the M and NCR groups were exposed to the same amount of disclosing. This control was introduced because it has been shown that the longer a person discloses the longer will be the second person's disclosure (Jourard and Jaffe, 1970).

For the three experimental groups any disclosures made during the experimenter's self-disclosure were not rated. Also, in the two reinforcement groups any disclosures made after the experimenter's self-disclosure

were ignored, when the tapes were rated.

The problem of the effects of the interviewer's non-verbal behavior (eg. verbal conditioning) (Wiener, Devoe, Rubinow, and Geller, 1972) was considered. It was felt that it would be best to keep the situation as natural as possible. If stipulations were set down as to when the experimenter could make eye contact, if the subject was blindfolded, or if the subject responded to questions from a tape-recorder, it would have seemingly affected the authenticity and enhanced the artificiality of the situation. The experimenter tried to react to each subject as similarly as possible except for the independent variable manipulation.

When the experiment was over the subjects were asked not to tell anyone else about the experiment. If the subject wanted to know more about the study he was told a letter would be sent to him explaining the experiment after all the subjects had been seen. A copy of this letter is contained in Appendix IV.

Two hired undergraduates rated each tape to determine the extent of the self-disclosing behavior for each subject. These two students were unaware of the hypotheses proposed, and had not been given any information as to the differences between groups. The adaptation of the

Haymes technique for measuring self-disclosure from tape-recorded interviews was used. The raters were trained to use the scoring technique on pilot data. The two raters then simultaneously but independently scored all of the recordings. The random order in which the tapes were rated was determined by the same technique as used with group assignment. One of four chips was taken from the container without replacement; when the disclosures from the first four subjects had been rated, the chips were returned to the container. This process was repeated until all the disclosures had been rated.

## RESULTS

Pilot data had served as material to train the two raters to use the Havmes technique of scoring. Training was continued until a seemingly high degree of accordance was reached. For the data from the actual experiment, the averaged ratings for each subject from the two raters correlated significantly ( $r = .96$ ,  $df = 43$ ,  $p < .001$ ). A correlation of .96 means that .92 of the variability in one rater's scores can be accounted for by the variability in the other rater's scores. This gives a very high and obviously satisfactory degree of inter-rater reliability. The dependent variable used in the ensuing analyses was the average of the two ratings on each question for each subject.

No subject refused to take part in this study but shortly after the experiment started it was found that all the subjects seemed to disclose therefore there appeared to be no difference between the CR group and NCR group. In actuality one person expressed the desire not to answer the sixth question in the CR group and was consequently not reinforced. This was the only apparent difference during the running of the experiment between the NCR and CR groups.

A four by ten randomized groups analysis of variance

(Edwards, 1972) with first factor, groups, assigned between subjects and the second factor, questions, assigned within subjects was performed on the dependent variable. That is, each of the ten questions was treated as a repeated measure of self-disclosure and there were four independent groups. Table 1 shows a summary of this analysis and the between and within subjects effects means and standard deviations are shown in Appendices V and VI respectively. Table 1 shows that there is a groups effect ( $p < .001$ ) and a questions effect ( $p < .001$ ). The interaction between groups and questions did not reach significance.

TABLE 1

A Summary of Analysis of Variance  
on Repeated Measures of Self-Disclosure

Source	df	MS	F
Groups (G)	3	3483.29	9.25***
Error	56	376.55	
Questions (Q)	9	570.76	10.10***
G x Q	27	61.57	1.09
Error	504	56.53	

\*\*\*  $p < .001$

Between Groups

Newman-Keuls technique (Kirk, 1969) for multiple comparisons was used to compare the means for each of the four groups. A summary of this analysis is shown in Table 2 which presents the mean differences for all possible pairwise comparisons. Disclosure in the M group was found to be significantly ( $p < .01$ ) greater than disclosure in either the C or the CR groups. Also disclosure in the NCR group was significantly ( $p < .05$ ) greater than disclosure in the C and CR groups. No significant differences between the C and CR groups nor between the NCR and M groups were indicated

TABLE 2

## Multiple Comparisons Between Groups

	C group	CR group	NCR group	M group
Mean =	9.79	10.64	16.51	19.87
C	-	.85	6.72*	10.08**
CR		-	5.87*	9.23**
NCR			-	3.36
M				-

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

df = 56



### Question Effects

Since the analysis of variance on the repeated measures of self-disclosure showed a significant effect due to questions, Newman-Keuls technique for multiple comparisons was used to compare the means for each question. No hypotheses were presented concerning this analysis and therefore no explanation is given as to why specific results were obtained. The results are shown in Table 3 which presents the mean differences for all possible comparisons, 19 were significant.

TABLE 3

## Multiple Comparisons of Question Means

	10	6	9	3	7	5	4	2	8	1
	friends	sex	happy	interests	self	future	personality	drugs	anger	religion
Mean =	9.59	10.59	12.77	12.93	13.23	13.88	15.56	16.21	17.80	19.47
10	-	1.00	3.18	3.34	3.64	4.29*	5.97**	6.62**	8.21**	9.88**
6		-	2.18	2.34	2.64	3.29	4.97**	5.62**	7.21**	8.88**
9			-	0.16	1.46	1.11	2.79	3.44	5.03**	6.70**
3				-	0.30	0.95	2.63	3.28	4.87**	6.54**
7					-	0.65	2.33	2.98	4.57**	6.24**
5						-	1.68	2.23	3.92*	5.59**
4							-	0.65	2.24	3.91*
2								-	1.59	3.26*
8									-	1.67
1										-

\* p &lt; .05

\*\* p &lt; .01

df = 504

## DISCUSSION

The major findings in the experiment conducted were as follows. The control (C) and contingent reinforcement (CR) groups evidenced less self-disclosure than the non-contingent reinforcement (NCR) and modelling (M) groups. There was no difference between the C and CR groups nor between the NCR and M groups. Differences within subjects revealed by the analysis of variance and pairwise multiple comparisons evidenced many differences between questions. But, since there was not any indication of a groups by question interaction, it was assumed that the averaged data from all ten questions was a reasonable measure of self-disclosure. The differences between questions merely reveal that in the present experiment there was more self-disclosure in regard to some topics than in regard to others. This finding reconfirms the fact that there is more self-disclosure in regard to some topics than in others. Jaffe (1969) found consistently longer disclosures in response to topics of high intimacy than to topics of low intimacy. Reck (1967) found more information is revealed about attitudes, opinions, tastes, and interests than about bodies and personalities. Table 3 gives the information in regard to which topics elicited the more disclosure.

The fact that the results from the CR group did not differ from the C group, and the fact they did differ from the results of the NCR group, will be discussed first. Phenotypically, the CR and NCR groups were virtually identical groups. This statement is evidenced by the fact that only one subject out of the fifteen in the CR group did not receive the experimenter's self-disclosure and this was on only one of the ten questions. In spite of the fact that phenotypically the CR and NCR groups were nearly identical, the data indicated they were different. Disclosure in the CR group was either suppressed or not encouraged to the degree that disclosure in this group was lower than in the NCR group and no higher than in the C group. There are different possibilities as to why this may have occurred, but, before these are discussed, the possibility as to whether or not the manipulation in the CR group should have been or could have been successful will be discussed.

According to how the reinforcement manipulation was designed, the CR group was only to receive a disclosure when a subject disclosed something and the NCR group was to receive a disclosure to every question, independent of whether or not a subject disclosed

anything. But, as already mentioned, all subjects in the CR group disclosed something to all the questions, except one out of a possible 150, the experimenter disclosed to all the questions except one. This made the CR group virtually identical to the NCR group. Since in this experiment the experimenter decided subjectively, keeping in mind the Haymes criterion, when he was to disclose, it was decided to see how often the experimenter would have disclosed on the basis of the raters' analysis of disclosure. Even using this criterion as to when the experimenter should have disclosed in the CR group, it was found that he would have disclosed to 147 out of the 150 possible questions. It appears as if the CR group's manipulation, as it was attempted in the present experiment, is an impossible manipulation to make virtually all subjects seemed to disclose something to every question, however minimal. Perhaps one could be successful reinforcing either certain quantities or qualities. Powell (1968) has already been successful in using self-disclosure to increase the emission of certain types of disclosure, ie. positive or negative self references by rewarding the appropriate kind of self disclosure, in different conditions, with a self-disclosure.

But, just reinforcing the presence or absence of disclosure does not, on the basis of the present experiment, seem feasible.

Now, the various possibilities as to why disclosure in the CR group was either suppressed or not encouraged to the degree it was in the NCR group will be discussed. Hesitation, by the experimenter, is one possibility as to why disclosure in the CR group was either suppressed or not encouraged. For the experimenter, the CR group presented the only problem regarding group manipulation. The experimenter had to decide whether each subject, in the CR group, should receive a disclosure or not. There was no such decision to make for the NCR group. The experimenter, because he knew in advance exactly what was to be done with the NCR group, may have been more unhesitating and spontaneous in his actions with this group. This could have been the reason disclosure in this group was elicited to a greater degree than it was in the CR group.

Another possible reason as to why the NCR group had a significantly greater amount of disclosure than the CR group could be because the experimenter had knowledge of and had proposed the hypotheses proposed (Rosenthal, 1963). It was hypothesized that the CR group

would be the most successful group in promoting self-disclosure. As previously mentioned, very soon after data collection had begun, it became apparent that the manipulation for the CR group was not going to result in a group very different if at all different from the NCR group. This at the time was somewhat discouraging to the experimenter and it may have caused him to unknowingly treat the CR group differently and thereby have repressed or failed to elicit disclosure in this group.

There are probably many other possible reasons in regard to what may have happened in the CR group to have either suppressed or failed to elicit self-disclosure. It is quite apparent that something different does seem to have happened in the CR group. Even a perusal of the standard deviations for the four groups in Appendix V, even though the differences are not significant, again suggests that the CR group was treated somewhat differently. But, at the present time, with the available data, nothing more in regard to what happened in the CR group can be said with any degree of confidence.

The major finding of this study was that there was more self-disclosure in the M and NCR groups than in the

C group. This finding indicates that a self-disclosure dyadic effect occurred within the M and NCR groups. The most apparent similarity between the M and NCR groups is that a disclosure was given to every question on a non-contingent spontaneous basis. In the NCR group the experimenter's disclosure was automatically given after the subject's disclosure. In the M group the experimenter's disclosure was always given before the question was asked. Again, as when discussing what happened in the CR group, it appears as if the important variable was whether or not the experimenter spontaneously self-disclosed. On the basis of the present experiment it does not seem to matter when the experimenter self-discloses. Spontaneous self-disclosure either before or after proposed topics of disclosure appears to be effective in producing increments in the disclosure level of other people. These results contribute to the evidence, along with other studies (Savicki, 1972; Drag, 1969; Truax & Wittmer, 1971), that there is a self-disclosure dyadic effect. The reasons as to why some studies (Fuller, 1971 and Hays, 1972) have failed to demonstrate the self-disclosure dyadic effect are not apparent at the present time.

Bandura (1965) was cited in the Introduction of



this thesis to support the hypothesis that the CR procedure would be the most effective in promoting self-disclosure. Bandura stated that "modelling procedures are most efficacious in transmitting new response patterns whereas operant conditioning methods as applied to human behavior are typically concerned with the management and control of previously learned responses [p. 319]." Since it was assumed that self-disclosure is in the repertoire of most college students, contingent reinforcement was hypothesized to be the most effective technique to elicit it. This assumption seems to have been valid judging by the amount of disclosure displayed in the C group. But on the basis of the present experiment, since the contingent reinforcement manipulation was not successful, no evidence was obtained in regard to whether or not Bandura's proposals are applicable to self-disclosing behavior.

In summary, the findings of the present study strongly suggest that a major factor in regard to eliciting self-disclosure from people is whether or not one spontaneously discloses one's self to them independent of whether one discloses before or after them. This study contributes to the growing body of evidence (Savicki, 1972; Drag, 1969; Truax & Wittmer, 1971;

Vondracek & Vondracek, 1971; and Certner, 1971) that there is a self-disclosure dyadic effect. This study also adds credence to the notions of Jourard (1964), Mowrer (1964), and Rogers (1970) who in essence have said that to encourage self-disclosure on the part of others, one has to appear willing to spontaneously self-disclose.

## REFERENCES

- Altman, I. & Taylor, D. A. Disclosure as a Measure of Social Penetration. Paper presented at a symposium on Self-Disclosure in the Interpersonal Relationship, California, September, 1968.
- Bandura, A. Behavioral Modifications through Modeling Procedures. In Krasner, L. & Ullman, L. P. (Eds.) Research in Behavior Modification. New York: Holt, 1965.
- Bandura, A., Ross, D., & Ross, S. A. Transmission of Aggression through Imitation of Aggressive Models. Journal of Abnormal and Social Psychology, 1961, 63, 575 - 582.
- Certner, B. C. The Exchange of Self-Disclosures in Same-Sexed and Heterosexual Groups of Strangers. Dissertation Abstracts International, 1971, 31, 4885A.
- Drag, L. R. Experimenter-Subject Interaction: a situational determinant of the differential levels of self-disclosure, Unpublished Masters Thesis, U. of Florida, 1968. cited by Jourard, S. M. Self-Disclosure: An Experimental Analysis of the Transparent Self. New York: Wiley-Interscience, 1971.
- Edwards, A. L. Experimental Design for Psychological Research. New York: Holt, Reinhart, & Winston, 1972.

- Fuller, J. B. An Investigation of Self-Disclosing Behavior and the Affective Response within a T-Group Setting. Dissertation Abstracts International, 1971, 32, 1852A.
- Glasser, W. Reality Therapy: A New Approach to Psychiatry. New York: Harper & Row, 1965.
- Hays, C. T. The Effects of Initial Disclosure Level and Interviewer Disclosure Level upon Interviewer's Subsequent Disclosure Level. Dissertation Abstracts International, 1972, 32, 4215B.
- Jaffe, P. E. Self-Disclosure: An Example of Imitative Behavior. Unpublished Masters Thesis, U. of Florida, 1969. cited by Jourard, S. M. Self-Disclosure: An Experimental Analysis of the Transparent Self. New York: Wiley-Interscience, 1971.
- Jourard, S. M. Self-Disclosure and other Cathexis. Journal of Abnormal and Social Psychology, 1959, 59, 428 - 431.
- Jourard, S. M. The Transparent Self; Self-Disclosure and Well-Being. Princeton: Nostrand, 1964.
- Jourard, S. M. The Transparent Self (2nd. edition). New York: Van Nostrand Reinhold, 1971a.
- Jourard, S. M. Self-Disclosure: An Experimental Analysis of the Transparent Self. New York: Wiley-Interscience, 1971b.

- Jourard, S. M. Healthy Personality. New York: Macmillan, 1974.
- Jourard, S. M. & Jaffe, P. E. Influence of Interviewer's Disclosure on the Self-Disclosing Behavior of Interviewees. Journal of Counselling Psychology, 1970, 17, 252 - 257.
- Jourard, S. M. & Landsman, M. J. Cognition, Cathexis and the 'Dyadic Effect' in Men's Self-Disclosing Behavior. Merrill-Palmer Quarterly, 1960, 6, 178 - 186.
- Jourard, S. M. & Richman, P. Disclosure output and input in college students. Merrill-Palmer Quarterly, 1963, 9, 141 - 148.
- Kirk, R. E. Experimental Design: Procedures for the Behavioral Sciences. Belmont: Wadsworth, 1969.
- Klepper, I. L. The Effects of Pre-Interview Exposure to Vicarious Reinforcement on Disclosure and Attraction in Alcoholics. A Psychotherapy Analogue. Dissertation Abstracts International, 1971, 32, 563 - 564R.
- Lewin, K. Some social-psychological differences between the United States and Germany. Character and Personality, 1936, 4, 265 - 293.
- Levinger, G. & Senn, D. J. Disclosure of feelings in marriage. Merrill-Palmer Quarterly, 1967, 13, 237 - 249.

- McNeal, S. A. Emotionality and Effects of Modeling on Verbal Behavior in an Interview. Dissertation Abstracts International, 1971, 32, 566B.
- Mowrer, O. H. The New Group Therapy. Princeton: D. Van Nostrand, 1964.
- Patterson, C. H. The Place of Values in Counseling and Psychotherapy. Journal of Counseling Psychology, 1958, 5, 216 - 223.
- Plog, S. C. The disclosure of self in the United States and Germany. Journal of Social Psychology, 1965, 65, 193 - 205.
- Polansky, N. A. The concept of Verbal Accessibility. Smith College Studies in Social Work, 1965, 36, 1 - 46.
- Powell, W. J. Differential Effectiveness of Interviewer Interventions in an Experimental Interview. Journal of Consulting and Clinical Psychology, 1968, 32, 210 - 215.
- Reck, J. J. Psychological Tests as Invasions of Privacy in Personnel Settings: Students' Reactions, Approval Motivation, and Self-Disclosure Patterns. Dissertation Abstracts, 1967, 28, 2630 - 2631B.
- Rickers-Ovsiankina, M. A. & Kusmin, A. A. Social Accessibility in three age groups. Psychological Reports, 1956, 2, 283 - 294.

- Rogers, C. R. Encounter Groups. New York: Harper & Row, 1970.
- Rosenthal, R. On the social psychology of the psychological experiment: the experimenter's hypothesis as unintended determinant of experimental results. American Scientist, 1963, 51, 268 - 283.
- Savicki, V. Outcomes of Non Reciprocal Self-Disclosure Strategies, Journal of Personality and Social Psychology, 1972, 23, 271 - 276.
- Truax, C. B. & Wittmer, J. Self-Disclosure and Personality Adjustment. Journal of Clinical Psychology, 1971, 27, 535 - 537.
- Vondracek, S. I. & Vondracek, F. W. The Manipulation and Measurement of Self-Disclosure in Preadolescents. Merrill-Palmer Quarterly, 1971, 17, 51 - 58.
- Walker, L. J. S. Friendship Patterning as Affected by Intimate and Nonintimate Self-Disclosure. Dissertation Abstracts International, 1973, 33, 3326B.
- Wiener, M., Devoe, S., Rubinow, S. & Geller, I. Non-verbal Behavior and Non-verbal Communication. Psychological Review, 1972, 79, 185 - 214.
- Worthy, M., Gary, A., & Kahn, F. M. Self-Disclosure as an Exchange Process. Journal of Personality and Social Psychology, 1969, 13, 59 - 63.

## LIST OF APPENDICES

	Page
I. Questions.....	34
II. An Adaptation of Haymes Technique for measuring Self-Disclosure from Tape-Recorded Interviews.....	35
III. Experimenter's Self-Disclosing Statements.....	36
IV. Letter sent to Participants.....	40
V. Means and Standard Deviations for the Between Groups Effects.....	42
VI. Means and Standard Deviations for the Within Groups Effects.....	43



## Appendix 1: Questions\*

Abbreviations

- |  |             |
|--|-------------|
| 1. What do you think and feel about religion?  | religion    |
| 2. What do you think about the illegal use of drugs?                                     | drugs       |
| 3. What interests do you have outside of school?   | interests   |
| 4. What things about your own personality or appearance worry or annoy you?              | personality |
| 5. What things about the future do you worry about at present?                           | future      |
| 6. What are your views about what is acceptable sex morality for people to follow?       | sex         |
| 7. Are there characteristics of yourself that give you cause for pride and satisfaction? | self        |
| 8. What are your usual ways of dealing with depression, anxiety, and anger?              | anger       |
| 9. What were the occasions in your life in which you were the happiest?                  | happy       |
| 10. What do you expect from friendship?  | friends     |

\*adapted from Jourard (1971b).

Appendix II: An Adaptation of Haymes Technique for  
measuring Self-Disclosure from Tape-  
Recorded Interviews \*

Procedure:

A score of two points was given to disclosures when they were first person references.

A score of one point was given to the disclosures when they were reflexive third person references. These statements had 'You' substituted for 'I.' This category also included statements such as 'We...' for this denotes membership in a group.

Non-reflexive third person references, such as 'people always...', in which people are not really revealing any information about themselves, were not scored. Repetitions were not scored either.

In the case of the two reinforcement groups any comments made after the experimenter's self-disclosure were not scored. Any interjections during the experimenter's self-disclosure, in the three experimental groups, were ignored.

\* Examples of self-disclosure are given in Jourard (1971b).

## Appendix III: Experimenter's Self-Disclosing Statements

1. I feel that it is an important part of my life. I believe in God and my form of worship; my denomination is Anglican. We need something to believe in; life would be useless without something to believe in and religion seems to be the answer for me.

2. I do not feel that the legal aspects of drug use should be stressed to the extent that they are. I do not condone the use of many so-called 'illegal' drugs but still I do not condemn the person or his use of these drugs. I believe more research is required. We still know so little about the physical and psychological effects of drugs. We don't even understand why people take drugs; there might be a reason why they need them. I think a possible reason could be for a crutch as often seen with alcohol.

3. I enjoy music. I play the piano and have been involved accompanying choirs, and being in choirs myself. I enjoy outdoors sports such as sailing, water-skiing and swimming. I especially like to travel. I am curious about other people and places. I am from Victoria, British Columbia and Thunder Bay is the farthest east in Canada I have been. It has stimulated my interest in seeing the rest of the country.

4. I don't feel that I am assertive enough; at times I let people walk all over me. I feel shorter than others; maybe I have feelings of inferiority. I would like to improve my entire appearance - physical condition, weight etc. I guess we are all dissatisfied at times. I would like to be happier. It seems that I am either happy or sad, never somewhere in the middle.

5. Happiness would certainly be my main priority for the future. I would like to be successful in my job, have respect, and be well liked. Financial security would certainly be nice. Problems concerning money or family could certainly be avoided. I would like to get married and have kids but sometimes I wonder if I ever will.

6. I do not condone perversion. I am against incest. I don't think I could tolerate public displays of sex; sex is a private matter. I am not against homosexuality. If these people are happy and they do not bother anyone or impose their life styles upon people I see nothing wrong with it. I am not against premarital sex. If two people mutually agree to have a sexual relationship, who is to stop them.

7. I am proud of the things I have accomplished. For example, getting a Bachelors degree, I never thought I

would get it. I feel good when I make people feel better by my own characteristics or talents whether it only be talking with them (eg. older people) or through music.

8. I often turn inward and become depressed. This will last until I get over the problem. I may talk the situation over with friends and try to come to some conclusion or solution. I may even let it 'come to a head' and have a good argument or use some means of 'letting off steam.' This may be physical exercise in the case of anger or anxiety; I often play the piano when I am depressed.

9. I suppose everyone was happy during their childhood if their home wasn't in some kind of turmoil. During grades eight, nine, and ten I was very happy. I was very busy with clubs, sports; I did well academically, and I had lots of friends. University graduation was very happy also. It gave me self confidence that I could do well academically. Being successful at school is very important for me at the moment. Getting accepted into a graduate school was another outstanding happy moment; I never thought I would be accepted. I had had quite a few rejections up until that point.

10. I expect respect and trust from a friend. I believe there should be an understanding of each other's personality;

their weaknesses and their strengths. When this is known, a friendship is bound to be more lasting and definitely more cohesive - I feel the most important characteristic of a friend is to give support in time of need.

## Appendix IV: Letter Sent to Participants

9 November 1973

Dear Participant:

This is the reply which was promised to you concerning the reasons for, and the nature of the experiment 'Merge.'

As you remember you were asked ten questions. Some of you will remember me giving my own opinions concerning each particular question, and others will not. Each person in the study was not treated the same; he was in one of four groups, which were:

Control Group - these people were just asked to give their opinions on the ten questions. I did not divulge any of my own opinions.

Contingent Reinforcement Group - these people were also asked the ten questions but if they 'disclosed' any information of themselves concerning that particular question, the experimenter's own opinion followed their's.

Non-Contingent Reinforcement Group - these people received disclosure from myself whether or not they themselves disclosed.

Modelling Group - the people in this group received my own 'disclosure' even before they were actually asked the corresponding question.

I am sure it will be obvious which group you were a member of.

I have hypothesized that the Reinforcement and Modelling Strategies will elicit more self-disclosure (telling of your own emotions, needs, fantasies, dreams, self-awareness etc.) than the Control Group. I have also hypothesized that using my own self-disclosure as a reinforcement (giving it after your disclosures) will elicit a greater amount of self-disclosure from you than using my self-disclosure as a model.

The reasons for these hypotheses are substantiated in the literature. Sidney Jourard, in his book The Transparent

Self and in other studies, has shown that the more one says about one's self the more another person is apt to say about theirselves. This is, consequently, some of the evidence to support the belief that the reinforcement and modelling strategies will elicit more self-disclosure than the Control group.

Bandura cited in his book Research in Behavior Modification\*, found that modelling procedures are likely to be most effective in situations where the required response is a completely novel one and that reinforcement procedures are the most appropriate for changing the frequency of a response that is already available to the subject. Self-disclosure, in my opinion, is not a novel response for introductory Psychology students. Therefore reinforcement should (if Bandura's findings are true) be the most effective in promoting self-disclosing behavior. Now you may ask yourself, is receiving another person's self-disclosure really reinforcing? This has never really been determined. It has usually been taken for granted that it is. My study will also help to clarify this point. If the outcome is as predicted, it would give support to the notion that receipt of self-disclosure is a rewarding consequence.

If you are interested in asking any further questions or curious of the results (which should be available in January), feel free to come and talk to me any afternoon. I can be found at or contacted through the Psychology Graduate Student's Room and office area (M. B. 2001).

Yours Sincerely,

Ross Morgan & Jim Evans

\* Bandura did not write this book, his article was cited in it consequently this is an error in this letter. This is the way the letter was sent to the participants and is therefore a copy of the letter as the subjects saw it.



Appendix V: Means and Standard Deviations for the  
Between Groups Effects

	Groups			
	CR	NCR	M	C
Mean	10.64	16.51	19.87	9.79
S. D.	6.80	10.72	11.23	9.54

Appendix VI: Means and Standard Deviations for the Within Groups Effects

Questions

	1	2	3	4	5	6	7	8	9	10
religion	19.47	16.21	12.93	15.56	13.88	10.59	13.23	17.80	12.77	9.59
drugs										
interests										
personality										
future										
sex										
self										
anger										
happy										
friends										
Mean	19.47	16.21	12.93	15.56	13.88	10.59	13.23	17.80	12.77	9.59
S. D.	12.74	12.83	9.02	10.29	8.61	8.05	9.09	12.26	10.12	6.32