

PROMOTING SELF-DISCLOSURE FROM PRISON INMATES

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ABSTRACT

This study examined the effects of interviewer self-disclosure on the self-disclosure of 40 male prison inmates and 40 male university students. A four-point scale was used for rating the intimacy of self-disclosure, the number of statements were counted for scoring the breadth of self-disclosure, and a stop watch was used to time the duration of self-disclosure. The three measures correlated highly with each other, indicating all were good measures of self-disclosure. The self-disclosure reciprocity effect was demonstrated with both prison inmates and university students. It was also found that overall, prison inmates self-disclosed significantly less ($p < .05$) than university students. The personality variables of extroversion and neuroticism, as measured by the Eysenck Personality Inventory, were also examined. Prison inmates were significantly lower than university students on extroversion ($p < .001$) and no different than university students on neuroticism. It was also found that extroversion was positively related to self-disclosure. However, neuroticism was not related to either self-disclosure or to extroversion.

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INTRODUCTION

Self-disclosure has been defined as the process of making the self known to another person (Jourard & Lasakow, 1958). Operationally, self-disclosure may refer to the intimacy, breadth, and duration of verbal statements a person makes about himself. Jourard and his associates (1958, 1964, 1971) conducted numerous empirical studies on such aspects of self-disclosure as sex, race, ethnic group, age, marital status and religious denomination. They found that various groups had characteristic levels of self-disclosure. For example, they found females self-disclosed more than males, American college students self-disclosed more than British or German students, and police officers self-disclosed less than college students. No studies, known to the author, have been done comparing prison inmates' level of self-disclosure with another group. It seems likely however, that prison inmates would self-disclose less than university students.

Although it seems there are different levels of self-disclosure for different groups, there are numerous factors affecting these levels. The target of self-disclosure seems to be an important variable. For instance, same-sexed friends are reported as more frequent recipients of self-disclosure than opposite-sexed friends (Jourard, 1964, 1971). Also, mothers are reported more frequently as the recipients of self-disclosure by college students, regardless of sex (Jourard & Lasakow, 1958). Slobin, Miller & Porter (1968) found that persons were most likely to self-disclose to peers, next most likely to supervisors, and least likely to subordinates. It seems people differentially self-disclose depending upon their relationship with the person to whom they self-disclose. Brodsky & Komaridis (1968) showed

that prison inmates preferred to self-disclose very little to staff, but much more to fellow prisoners. It may be that not only prison inmates but most people self-disclose to those who have already demonstrated that they will not punish their self-disclosures, or to those who have no capacity for punishing. Rubin (1975) reported that subjects were willing to share intimate disclosures with total strangers whom they never expected to see again. Also, physical factors such as room size, decor, distance between disclosure and target, and interviewer's attire may be important variables affecting the level of self-disclosure. However, much of the research deals with psychological factors which facilitate self-disclosure, such as the reciprocity effect.

As early as 1959 Jourard stated that, "...one of the necessary conditions for promoting self-disclosure in another is to volunteer it oneself." (p. 428). Empirical findings such as those of Jourard and Resnick (1970) and Worthy, Gary and Kahn (1969) led Jourard (1971) to maintain that self-disclosure from one person was a powerful stimulus to self-disclosure from the other. This process was called the dyadic effect or reciprocity effect. Numerous later studies support Jourard's contentions (e.g. Becker & Munz, 1975; Ehrlich & Graven, 1971; Morgan & Evans, 1977; Savicki, 1972). For the purpose of this study, self-disclosure reciprocity will refer to the general finding that the greater the intimacy, breadth, and duration of self-disclosure on the part of one person in a dyadic encounter, the greater the intimacy, breadth and duration of self-disclosure on the part of the other.

Although self-disclosure reciprocity is a powerful process, there are instances where it does not occur (e.g. Fuller, 1971, Hays, 1972, Vondracek,

1969). Differences in status reduce the likelihood of reciprocal disclosure from high status to low status individuals; certain role relationships, such as doctor-patient or prison staff-prison inmate, may inhibit reciprocal disclosure. One reason may be fear of the potential negative consequences which may occur. Yet, in a prison setting, there is a need to get the most intimate self-disclosure as early as possible. During the first interview, a prisoner is assessed by a staff interviewer, and soon after assigned to work, training, and/or treatment. The need to gather relevant and intimate information as soon as possible is imperative. Self-disclosure by the interviewer may facilitate this process. Other researchers have raised the question of self-disclosure with prison inmates, but there are no studies known to the author concerning the self-disclosure reciprocity effect with inmates. With prison inmates, Ollerman (1975) found there was a significant increase in self-disclosure over a twenty-four session group counselling experience. In a thirty-five minute interview session, Persons & Marks (1970) found inmate subjects became more self-disclosing over time. The interviewer's main task was to persuade the inmate to become more honest, intimate, and self-disclosing. To do this the interviewer employed any interpersonal techniques within his repertoire. However, self-disclosure by the interviewer was not one of the techniques used. In the Brodsky & Komaridis' (1968) study, the Jourard Self-disclosure Questionnaire was administered one week after inmates were confined and again five weeks following arrival. No attempt was made by the researcher to manipulate levels of self-disclosure.

Both the level of self-disclosure and the reciprocity effect may have important implications for therapy. Jourard (1959) argued that the ability

to allow one's real self to be known to at least one significant other is a prerequisite for a healthy personality. Mowrer (1964), Rogers (1961) and numerous other authors have written on the importance of full client disclosure for successful therapy. Truax & Carkhuff (1965) showed that clients who spent most of their therapeutic time in active self-disclosure showed more improvement than their counterparts who spent little time in self-disclosure.

Jourard (1971) and many others believe that the reciprocity effect operates in therapy as in other interpersonal encounters, and therefore, self-disclosure by a therapist encourages clients' self-disclosure. Several studies support this contention (Bundza & Simonson, 1973; Certner, 1971, Jourard, 1971; Jourard & Jaffe, 1970). However, Truax and Carkhuff (1965) stressed that the therapist needs only to disclose medium-high, rather than highly intimate information, to be effective. Simonson (1976) showed empirically that a medium-high self-disclosing therapist elicited higher self-disclosure from clients than did a high self-disclosing therapist.

Although there is considerable evidence that self-disclosure is an important variable in treatment, the relationship between self-disclosure and mental health is not at all clear. Jourard (1964) believed that self-disclosure should be negatively related to clinical maladjustment and positively related to mental health. However, in studies relating self-disclosure to mental health, results have been inconsistent. Mayo (1968), found that neurotic in-patients, as defined through clinical assessment, were significantly lower on self-disclosure than normals. Using the cycloid disposition and neuroticism scales of the Pederson Personality

Inventory, Pedersen and Higbee (1969) found a significant positive correlation between self-disclosure and mental health for males, but found no significant relationship for females. Persons and Marks (1970) found a significant negative relationship between self-disclosure and mental health for prison inmates, as measured on the Minnesota Multiphasic Personality Inventory (MMPI). In discussing results such as these, Chaikin et al (1975) thought that because of so little consistency in the conceptual and operational definitions of mental health, it was not surprising that the results were also inconsistent. Their study was concerned with the relationship between self-disclosure and neuroticism, rather than mental health per se. Using the neuroticism (N) scale of the Maudsley Personality Inventory (MPI), their results indicated that neuroticism may be related to inappropriate self-disclosure, rather than characteristically high or low self-disclosure. Neurotics disclosed at a moderate level regardless of whether the confederate's initial self-disclosure was intimate or superficial (Chaikin, Derlega, Bayma & Shaw, 1975). Other studies using the N scale of the MPI have found no relationship between self-disclosure and neuroticism (Stanley and Bownes, 1966; Swensen, 1968).

The personality dimension of extroversion also seemed appropriate in considering levels of self-disclosure and reactions to interviewer self-disclosure. Conflicting results have been obtained concerning the relationships between extroversion and self-disclosure. Mullaney (1963) found self-disclosure to be significantly related to Social Introversion, as measured on the Minnesota Multiphasic Personality Inventory. Extroversion did not emerge as an important variable in Pedersen and Higbee's (1969) study. They used the "Personality Inventory," as compiled by Pedersen (1962) to measure extroversion. Swensen

(1968) found a significant positive relationship between self-disclosure and the extroversion dimension of the Maudsley Personality Inventory. However, Becker and Munz (1975), using the Eysenck Personality Inventory, found no significant relationship between extroversion and self-disclosure.

On the Maudsley Personality Inventory (MPI) or the revised form, the Eysenck Personality Inventory (EPI), criminals, according to Eysenck (1964), should score high on neuroticism (N) and extroversion (E). A high score on the neuroticism dimension is indicative of emotional instability and over-reactivity. Such individuals are predisposed to neurotic disorders. Those with low scores tend to be better adjusted and more emotionally stable. A high score on the extroversion (E) dimension indicates a person who likes to talk to people and always has a ready answer. A low score, on the other hand, indicates a person who is quiet and introspective; and reserved and distant except to intimate friends (Eysenck & Eysenck, 1968). Eysenck and Eysenck (1970) presented the results of investigations involving over six hundred male prisoners. They found that prisoners scored high on the N scale but the results concerning extroversion (E) did not support their earlier predictions. In fact, Hughghi and Forrest (1970) reviewed a number of studies which suggested that young male offenders were significantly less extroverted than non-inmate controls. Black and Gregson (1973) found young New Zealand criminals were high on neuroticism (N) but did not differ from normals on extroversion (E). Bartholomew (1959) got basically the same results with English male prisoners. Overall, results then are not clear but it seems most criminal groups are higher than non-criminals on neuroticism (N) and no different from non-criminals on extroversion (E).

Self-disclosure and factors which are related to it have been studied extensively, however, little work has been done with prison inmates. Whereas many of the studies have been done with university students, this study will use them as the comparison group.

In prisons, in-depth assessments of inmates are needed for purposes of program involvement and discharge planning. Most of the information needed for assessment purposes is elicited through inmate questionnaires. If the intimacy, breadth and duration of inmate's answers could be increased, classification and assessment would be improved. An effective and efficient technique for increasing university student's self-disclosures has been interviewer self-disclosure. This technique should also work with prison inmates. Those people to whom the interviewer self-discloses should self-disclose more intimately, in greater breadth, and a longer duration of time, than people to whom the interviewer does not self-disclose. The main hypothesis of this study is as follows:

1. The self-disclosure reciprocity effect will be achieved with both prison inmates and university students.

Jourard and his associates (1958, 1964, 1971) found various groups had characteristic levels of self-disclosure. No study, known to this author, has compared the level of prison inmates' self-disclosure with another group. This study will compare the overall level of prison inmates' self-disclosure to the overall level of university students' self-disclosure. There may be a general tendency for anyone being in a prison setting to self-disclose less. Therefore the second hypothesis is that:

2. Prison inmates will self-disclose less than university students.

Previous results with the extroversion (E) dimension of the Eysenck Personality Inventory have been inconsistent, finding both significant positive correlations (Swensen, 1968) and no significant correlation (Becker and Munz, 1975) between extroversion (E) and self-disclosure. Yet, because a high score on extroversion (E) indicates a person who likes to talk and always has a ready answer (Eysenck, 1968), it seems likely that extroversion will be positively related to self-disclosure. Therefore it is hypothesized that:

3. Extroversion will be significantly and positively correlated with self-disclosure.

Since the relationship between neuroticism (N) and self-disclosure is somewhat equivocal, and since there is evidence that people high on neuroticism may self-disclose inappropriately, no hypotheses will be made in regards to the relationship between neuroticism and self-disclosure.

METHOD

Subjects

The subjects were forty male correctional center inmates, with a mean age of 25 years, and forty male university students with a mean age of 21 years. The first forty new arrivals at the Thunder Bay Correctional Centre, after October 3, 1977, were used as inmate subjects. They were asked to take part in an assessment procedure, in which all new arrivals were participating. The university students volunteered as part of a regular program of participating in experiments for credit toward their final mark in introductory psychology.

Design

The design was a 2 x 2 factorial design which resulted in four different groups of 20 subjects each. The two factors were institution and treatment. For institution the two levels were correctional center vs. university and for treatment the two levels were no interviewer self-disclosure vs. interviewer self-disclosure. Within institutions, subjects were assigned randomly to each treatment.

Apparatus and Material

The experiment took place in two locations; at the Thunder Bay Correctional Centre for the inmates, and at Lakehead University for the students. The two interview rooms were quite similar. In both places, the only furnishings were a desk and two chairs; three walls were bare, and the fourth was all windows with drawn blinds. In both locations the interviewing desk was arranged in the same way. On the desk were the following: a Sony F-25 microphone; copies of the Eysenck Personality Inventory (EPI); and ten 5" x 8" question and self-

disclosure cards (see Appendix 8). Accessible to the experimenter, but hidden from the subject's view, was a Sony TC-66 cassette recorder with a remote control switch. Another constant in the physical surroundings was the interviewer's clothing. For all interviews, he was dressed in the same sports coat, slacks, shirt, and tie. The interviewer was the author of the present thesis.

The Eysenck Personality Inventory (EPI) was used to measure extroversion (E) and neuroticism (N). Reliability indices of acceptable magnitude are reported in the manual. The test-retest coefficients are between .80 and .97 and the split-half reliability coefficients are between .74 and .91 (Eysenck & Eysenck, 1968). Over 30,000 subjects were involved in the factor analysis and research on the various items which ultimately led to the E and N dimensions. Factor analytic confirmations of E and N are numerous (see Eysenck & Eysenck, 1968). As for concurrent validity, the E and N scales are highly correlated with other tests, measuring similar personality dimensions. For example, E correlates .79 with Guilford's Rhythymia scale, and .60 with the social presence scale of the California Personality Inventory (Eysenck & Eysenck, 1968). The N scale also correlates significantly with other scales. For example, .74 with Cattell's Anxiety Scale, and .81 with the Psychasthenia scale of the Minnesota Multiphasic Personality Inventory (Eysenck & Eysenck, 1968). Validity by nominated groups has also been shown. Eysenck and Eysenck (1968) have shown that individuals who impress independent judges as showing extroverted or introverted behavior patterns (E), or as being neurotic or stable (N), answer the EPI in a corresponding way.

Procedure

Before each interview the question and self-disclosure cards were

shuffled so they would be used in a random order. This was done to control for possible order effects. Before a subject appeared he was randomly assigned to either "no interviewer self-disclosure" or to "interviewer self-disclosure." If the first of a pair of subjects was assigned to the "no" condition, then the next subject would be automatically assigned to the "yes" condition, and vice versa.

After being called from a waiting room, the subject was seated across from the experimenter and informed that the session would start immediately, but at the end of the interview he would be given more information concerning the procedure. The subject was asked to fill in his name and age on the front of EPI form. The experimenter then read aloud the instructions on the front of the EPI, as the subject followed. After completing the EPI, the subject was told that he was going to be asked his views on ten topics such as drugs, religion, and personal interests. He was also told his answers would be taped. The microphone was moved close to the subject and he was asked the set of prepared questions in the predetermined random order.

A subject in the "no interviewer self-disclosure" condition was asked the set of prepared questions, with no comments by the interviewer. A subject in the "interviewer self-disclosure" condition was asked the prepared questions, and also received the prepared self-disclosures from the interviewer. In both conditions, the interviewer read the questions directly from the cards. The self-disclosures, given by the interviewer, were memorized, and given naturally and consistently in the interviewer self-disclosure condition.

The experimenter behaved as similarly as possible with each subject. For instance, his response was limited to a nod given after each statement

made by the subject. A post-experimental debriefing interview completed the experiment. The experiment was explained to the subjects and they were asked for a verbal commitment to confidentiality.

After the experimental part of the session, the inmates, but not the students, were interviewed further. This was done in order to complete an official assessment procedure, as practised at the Thunder Bay Correctional Centre. The details of this part of the interview are not relevant to this study and therefore are not reported.

On completion of the experiment, two blind raters were trained to use the scoring techniques. Pilot data served as material to train the raters to use a four-point scale (0 = not at all intimate; 3 = very intimate) for rating the intimacy of self-disclosure, (see Appendix 9 for verbal descriptions of the four different points); to count the number of statements for scoring the breadth of self-disclosure, and to use a stop watch for timing the duration of self-disclosure. After a high degree of concordance was reached, the raters independently scored the eighty randomly ordered tapes for intimacy, breadth, and duration of self-disclosure.

RESULTS

Separately, for each rater, the intimacy, breadth, and duration scores for each subject were summed across questions and divided by ten, i.e., for each rater and for each subject, mean intimacy, breadth, and duration scores were calculated. This resulted in each subject having two intimacy scores, two breadth scores, and two duration scores, one from each of the two raters. Concomitant scores from the two raters correlated significantly (Intimacy r (78) = .758, $p < .001$; Breadth r (78) = .995, $p < .001$; Duration r (78) = .998, $p < .001$). Because of the high degree of consistency between raters, the two scores for each of the three variables were averaged and the following analyses were performed on mean scores from the two raters. After completing the foregoing procedure, there were three dependent variables in this study, intimacy (INT) as measured by the rating scale, breadth (B) measured in number of statements, and duration (D) measured in seconds. The two personality variables, extroversion (E) and neuroticism (N) were analyzed, as well as age and lie scale scores from the Eysenck Personality Inventory.

These seven variables were analyzed using 2 x 2 factorial analyses of variance with the first factor being institution (correctional center vs. university) and the second factor being treatment (no interviewer self-disclosure vs. interviewer self-disclosure). All data were analyzed using the Statistical Package For The Social Sciences (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975).

Intimacy (INT)

For intimacy, there was a significant effect due to institution, F (1, 76) = 7.18, $p < .01$. The self-disclosure of center inmates was rated as less

intimate ($\bar{X} = .67$ rating points), than that of university students ($\bar{X} = .92$ rating points). Further, there was a significant effect due to treatment, $F(1, 76) = 25.45, p < .001$. The self-disclosure of subjects in the no interviewer self-disclosure groups was less intimate ($\bar{X} = .55$ rating points) than the disclosure of subjects in the interviewer self-disclosure groups ($\bar{X} = 1.03$ rating points). For intimacy, institution and treatment did not interact, $F(1, 76) = 2.09, p > .10$. Appendix I contains a summary of this analysis.

Breadth (B)

For breadth, there was a significant effect due to institution, $F(1, 76) = 6.20, p < .05$. The number of statements made by center inmates was less ($\bar{X} = 3.92$ statements) than the number made by university students ($\bar{X} = 5.31$ statements). Further, there was a significant effect due to treatment, $F(1, 76) = 16.38, p < .001$. In the no self-disclosure groups, subjects made fewer statements ($\bar{X} = 3.35$ statements) than in the interviewer self-disclosure groups ($\bar{X} = 5.77$ statements). For breadth, institution and treatment did not interact, $F(1, 76) = 1.79, p > .10$. Appendix 2 contains a summary of this analysis.

Duration (D)

For duration, there was a significant effect due to institution, $F(1, 76) = 5.92, p < .05$. The number of seconds center inmates spoke in response to each question was less ($\bar{X} = 14.92$ seconds) than the number of seconds university students spoke ($\bar{X} = 23.49$ seconds). Further, there was a significant effect due to treatment $F(1, 76) = 17.35, p < .001$. In the no self-disclosure groups, subjects spent less time self-disclosing ($\bar{X} =$

= 11.87 seconds) than in the interviewer self-disclosure groups ($\bar{X} = 26.54$ seconds). For duration, institution and treatment did not interact, $F(1, 76) = 1.07, p > .10$. Appendix 3 contains a summary of this analysis.

Extroversion (E)

For extroversion there was a significant effect due to institution, $F(1, 76) = 12.03, p < .001$. The extroversion scores for center inmates were significantly lower ($\bar{X} = 10.63$) than the extroversion scores for university students ($\bar{X} = 13.53$). No other significant effects were detected for extroversion. Appendix 4 contains a summary of this analysis.

Neuroticism (N)

No significant effects were found for neuroticism. Appendix 5 contains a summary of this analysis.

Lie (LIE)

For lie scores there was a significant effect due to institution, $F(1, 76) = 4.29, p < .05$. Lie scores for center inmates ($\bar{X} = 2.78$) were significantly higher than lie scores for university students ($\bar{X} = 2.03$). No other significant effects were detected for lie scores. Appendix 6 contains a summary of this analysis.

Age (AGE)

For age there was a significant effect due to institution, $F(1, 76) = 6.22, p < .05$. The mean age of center inmates ($\bar{X} = 24.93$ years) was significantly higher than the mean age of university students ($\bar{X} = 20.63$ years). No other significant effects were detected for age. Appendix 7 contains a summary of this analysis.

Interrelationships Among Variables

Pearson correlation coefficients were calculated among all pair-wise combinations for the following seven variables: intimacy (INT), breadth (B), duration (D), extroversion (E), neuroticism (N), lie (LIE), and age (AGE). Table 1 presents these correlations and their levels of significance.

Table 1

| | <u>B</u> | <u>D</u> | <u>E</u> | <u>N</u> | <u>LIE</u> | <u>AGE</u> |
|-----|----------|----------|----------|----------|------------|------------|
| INT | .821*** | .793*** | .271** | .161 | -.231** | -.109 |
| B | | .807*** | .208* | .077 | -.187* | -.027 |
| D | | | .218* | -.006 | -.320*** | -.065 |
| E | | | | -.139 | -.359*** | -.296*** |
| N | | | | | -.258** | -.192* |
| LIE | | | | | | .301*** |

*p < .10
**p < .05
***p < .01

DISCUSSION

As hypothesized, the self-disclosure reciprocity effect was achieved with both prison inmates and university students. Those people, to whom the interviewer self-disclosed, made more statements, spent more time disclosing, and disclosed more intimately than those to whom the interviewer did not disclose. It has been shown previously, that university students will reciprocate an interviewer's self-disclosure (Bundza & Simonson, 1973; Morgan & Evans, 1977; Powell, 1968; Simonson, 1976; Truax & Carkhuff, 1965). The present study has shown that the self-disclosure reciprocity effect also works with prison inmates.

Again, as hypothesized, prison inmates' level of self-disclosure was significantly lower than that for university students. Numerous factors may have contributed to this difference. Jourard and others have shown that a variety of social, cultural, and personality variables influence self-disclosure (Jourard, 1971). In this study, there were a large number of Native Indians (33%) in the inmate sample, and this factor may have influenced self-disclosure. Whether a person was interviewed in the prison or at the university may have had an effect. There may be a general tendency for anyone being in a prison setting to self-disclose less. People in prison may be more cautious as to what personal information they will divulge. Intimate self-disclosure should make assessment and classification easier and help in any treatment or learning process. However, intimate self-disclosure by inmates could also lead to negative consequences, such as unwanted treatment, further punishment, negative reports to the parole board, or

refusal of temporary absence passes. University students, on the other hand, are in a less threatening situation. The possible punishments for divulging intimate personal information are seemingly much less at a university than in a prison. Differences such as room size (Sundstrom, 1975) and decor and lighting (Chaikin, Derlega & Miller, 1976) have been shown to influence self-disclosure. However, in the author's opinion, the two rooms were so similar as to have a negligible effect. Also, it must be remembered that the university students were volunteers, who were aware of the experimental nature of the interview, whereas the inmates were not initially told of the experimental nature of the proceedings and this could have caused a difference. The significant difference in age may have also been a factor. The average age of the inmate sample was 25 years and the average age of the student sample was 21 years. These numerous differences in the groups makes generalizing difficult.

From the normative tables for the Eysenck Personality Inventory (Eysenck & Eysenck, 1968) it can be seen that the present sample of university students scored much the same, on extroversion and neuroticism, as American university students. The fact that prison inmates were significantly lower on extroversion (E) and no different on neuroticism (N), compared to university students, does not support Eysenck's (1964) contention that criminal groups score higher on extroversion and neuroticism than non-criminal groups. Similarly, Black and Gregson (1973) concluded that "Results with the EPI do not support Eysenck's theory that, on the whole, criminals are extroverted neurotics" (p. 58). The fact that prison inmates were significantly lower on extroversion than university students may only indicate that prison inmates answer the questions

differently than university students. This may be because they are in a prison and not in a university, and not necessarily because they are less extroverted. There is evidence to indicate this may in fact be the case. The fact that the "lie" score, on the Eysenck Personality Inventory, was significantly higher for inmates than for students indicates that the prison inmates were "faking good" (see Appendix 6).

Extroversion was significantly correlated with one of the measures of self-disclosure i.e., intimacy. The relationship between extroversion and the other two measures of self-disclosure, breadth and duration approached significance. Therefore, the third hypothesis is also supported, though not as convincingly as the other two hypotheses.

Although extroversion was partly correlated significantly with self-disclosure, there were no significant correlations with neuroticism. These findings concur somewhat with that of Swenson's (1968), who found a positive relationship between self-disclosure and extroversion, but no relationship between self-disclosure and neuroticism. It is possible that the relationship between self-disclosure and neuroticism, most probably, is more complicated than a simple linear relationship. Other researchers have investigated this relationship in greater detail. For example, Chaikin, Derlega, Bayma & Shaw (1975) found that people high on the neuroticism (N) scale of the MPI, disclosed at a moderate level regardless of whether the confederate's initial self-disclosure was intimate or superficial.

In the present study three different measures of self-disclosure were used as dependent variables: intimacy, breadth, and duration of self-disclosure. The high positive correlations among these three measures suggest that, in this study at least, there was a high degree of consistency among the three measures of self-disclosure.

The present findings have relevance for counselling and therapy. Prisoners usually self-disclose to fellow prisoners rather than to staff. If, however, they self-disclosed to institutional staff their chances of assimilating positive attitudes should be greatly enhanced (Brodsky & Kamaridis 1968). Intimate inmate self-disclosure could be a means of bringing thoughts and feelings into the open where they could be analyzed in order to aid learning or therapeutic processes. Even in initial interviews, the more inmates self-disclose, the easier it would be for interviewers to compile histories, making it easier to assess. It has been shown that counsellor self-disclosure facilitates inmate self-disclosure. This in turn would facilitate the process and outcome of counselling. Outcome data have generally confirmed the view that client self-disclosure in therapy has salutary effects (Fiegenbaum, 1977).

A staff member could also facilitate the learning of coping skills by using self-disclosure. Sarason (1975) showed that self-disclosure is important in teaching coping skills. Self-disclosure by staff and by prison inmates could be effective in teaching inmates such skills as problem solving, interpersonal and intrapersonal relations.

For several reasons generalizations to other prison populations must be made with caution. In the present study, the "prison inmate" sample was drawn from a minimum security, Provincial Correctional Centre, where residents

are serving sentences of less than two years. The more accurate term, then, would have been "Correctional Centre inmates." However, this term was not used because of its unfamiliarity for many readers. Thus, although both provincial and federal inmates are often called "prison inmates" it would not be legitimate to generalize the present findings to the federal prison inmate population. The inmates in federal prisons are serving much longer sentences, generally, for more serious crimes.

Another reason generalizations to other "prison" populations must be made with caution is because the Native Indian population in the present inmate sample was approximately one-third and there may be many differences between Native and Caucasian populations. For example, in the present study, the average extroversion and neuroticism scores for Natives was 9.9 and 9.9. For the rest of the inmate sample the scores averaged 11.0 and 13.5.

Another limitation of the study may have been interviewer effects. Although, the present author, who was the interviewer for both groups, tried to keep the conditions and procedures the same in both settings, there may have been slight differences. The interviewer knew, for instance, whether he was interviewing an inmate or a student. Nevertheless, since he was trying to elicit the reciprocity effect in both groups, differential treatment was not indicated.

In summary, the present study showed the prison inmates reciprocated self-disclosure. Also, their overall level of self-disclosure was lower, and they were less extroverted than university students. Furthermore, it was shown that extroversion was positively associated with self-disclosure, but only with partial significance. However, before these results can be

generalized to prison inmates in general, further research in different types of prisons will have to be done.

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Appendix 1

Intimacy

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|-------|----|------|-------|-------------|
| Institution (I) | 1.30 | 1 | 1.30 | 7.18 | 0.009 |
| Treatment (T) | 4.61 | 1 | 4.61 | 25.45 | 0.000 |
| I X T | 0.38 | 1 | 0.38 | 2.10 | 0.153 |
| Error | 13.76 | 76 | 0.18 | | |
| Total | 20.00 | 79 | 0.25 | | |

Mean Scores

and

(Standard Deviations)

Units = rating points (see Appendix 7)

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|----------------|
| Correctional Center | 0.50 (0.45) | 0.84 (0.54) | 0.67 (0.52) |
| University | 0.61 (0.31) | 1.23 (0.37) | 0.92 (0.46) |
| Mean | 0.55 (0.39) | 1.03 (0.50) | 0.80 (0.50) |

Appendix 2

Breadth

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|--------|----|--------|-------|-------------|
| Institution (I) | 44.25 | 1 | 44.25 | 6.20 | 0.015 |
| Treatment (T) | 116.89 | 1 | 116.89 | 16.38 | 0.000 |
| I X T | 12.80 | 1 | 12.80 | 1.79 | 0.184 |
| Error | 542.29 | 76 | 7.14 | | |
| Total | 716.23 | 79 | 9.07 | | |

Mean Scores

and

(Standard Deviations)

Units = number of statements

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|----------------|
| Correctional Center | 3.01 (2.80) | 4.63 (2.93) | 3.82 (2.94) |
| University | 3.70 (1.73) | 6.92 (3.05) | 5.31 (2.93) |
| Mean | 3.35 (2.32) | 5.77 (3.16) | 4.56 (3.01) |

Appendix 3

Duration

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|----------|----|---------|-------|-------------|
| Institution (I) | 1469.66 | 1 | 1469.66 | 59.92 | 0.017 |
| Treatment (T) | 4305.73 | 1 | 4305.73 | 17.35 | 0.000 |
| I X T | 266.28 | 1 | 266.28 | 1.07 | 0.303 |
| Error | 18856.45 | 76 | 248.11 | | |
| Total | 24898.13 | 79 | | | |

Mean Scores

and

(Standard Deviations)

Units = seconds

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|------------------|------------------|
| Correctional Centre | 9.41 (11.59) | 20.43 (19.81) | 14.92 (16.96) |
| University | 14.33 (10.07) | 32.65 (19.09) | 19.21 (17.69) |
| Mean | 11.87 (11.00) | 26.54 (20.17) | 19.21 (17.75) |

Appendix 4

Extroversion

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|---------|----|--------|-------|-------------|
| Institution (I) | 168.20 | 1 | 168.20 | 12.03 | 0.001 |
| Treatment (T) | 20.00 | 1 | 20.00 | 1.43 | 0.235 |
| I X T | 0.45 | 76 | 0.45 | 0.03 | 0.858 |
| Error | 1062.89 | 79 | 13.99 | | |
| Total | 1251.54 | | | | |

Mean Scores

and

(Standard Deviations)

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|-----------------|
| Correctional Center | 11.05 (3.00) | 10.20 (4.43) | 10.63 (3.76) |
| University | 14.10 (3.61) | 12.95 (3.78) | 13.53 (3.69) |
| Mean | 12.58 (3.62) | 11.58 (4.30) | 12.08 (3.98) |

Appendix 5

Neuroticism

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|---------|----|-------|------|-------------|
| Institution (I) | 1.51 | 1 | 1.51 | 0.05 | 0.817 |
| Treatment (T) | 9.11 | 1 | 9.11 | 0.33 | 0.570 |
| I X T | 35.11 | 1 | 35.11 | 1.25 | 0.267 |
| Error | 2133.14 | 76 | 28.07 | | |
| Total | 2178.88 | 79 | 27.58 | | |

Mean Scores

and

(Standard Deviations)

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|-----------------|
| Correctional Center | 13.30 (6.12) | 11.30 (5.69) | 12.30 (5.92) |
| University | 11.70 (4.19) | 12.35 (4.99) | 12.03 (4.56) |
| Mean | 12.50 (5.24) | 11.83 (5.31) | 12.16 (5.25) |

Appendix 6

Lie

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|--------|----|-------|------|-------------|
| Institution (I) | 11.25 | 1 | 11.25 | 4.29 | 0.042 |
| Treatment (T) | 0.20 | 1 | 0.20 | 0.08 | 0.783 |
| I X T | 0.45 | 1 | 0.45 | 0.17 | 0.680 |
| Error | 199.30 | 76 | 2.62 | | |
| Total | 211.20 | 79 | 2.67 | | |

Mean Scores

and

(Standard Deviations)

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|----------------|
| Correctional Center | 2.75 (1.80) | 2.80 (1.40) | 2.78 (1.59) |
| University | 2.15 (1.31) | 1.90 (1.89) | 2.03 (1.61) |
| Mean | 2.45 (1.58) | 2.35 (1.70) | 2.40 (1.64) |

Appendix 7

Age

Summary of Analysis

| Source of Variability | SS | df | MS | F | Probability |
|-----------------------|---------|----|--------|------|-------------|
| Institution (I) | 369.80 | 1 | 369.80 | 6.22 | 0.015 |
| Treatment (T) | 204.80 | 1 | 204.80 | 3.44 | 0.067 |
| I X T | 4.05 | 1 | 4.05 | 0.07 | 0.795 |
| Error | 4519.20 | 76 | 59.46 | | |
| Total | 5097.86 | 79 | 64.53 | | |

Mean Scores

and

(Standard Deviations)

Units = years

| | No Self-Disclosure | Self-Disclosure | Mean |
|------------------------|-----------------------|-----------------|-----------------|
| Correctional Center | 26.75 (10.00) | 23.10 (9.58) | 24.93 (9.84) |
| University | 22.00 (6.52) | 19.25 (1.86) | 20.63 (4.93) |
| Mean | 24.38 (8.68) | 21.18 (7.09) | 22.78 (8.03) |

Appendix 8

Interviewer's Questions and Self-Disclosures

Questions:

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

Interviewer's Self-Disclosures

1. Religion is important to me, but not in the ordinary sense. I'm a Unitarian, and basically believe I must keep trying, even though imperfectly, to reason out my existence. Church doctrine and many Christian concepts, especially the mystical and ritualistic ones, do not play a great part in my religion. I am able to live a contented life without calling on the help of supernatural powers.
2. The use of marijuana and perhaps cocaine should not be illegal. In fact, anyone using any drug to excess needs help, not jail. However,

distributors and sellers of most illegal drugs, especially narcotics, should be dealt with strictly and harshly.

3. I enjoy being at home with my family. I read and study a lot. Sometimes I play my bass fiddle or baritone horn. Building my summer cottage takes up some of my time. I also ski and sail.
4. I get tense very easily. I have to work at it continually or I just can't function well. I'm not easy going enough. I take some things too seriously, and often worry about things that don't need worrying about. I'm a slow worker and should use my time more effectively and efficiently.
5. I daydream and make plans for the future. My plans include being more free than I am now; having fewer material possessions, making less money, being controlled less by others, especially governments. I suppose I worry about whether I'll ever be able to do these things.
6. I believe two or more consenting adults can do whatever they want sexually - as long as they don't hurt someone else. For me there is sex for procreation (having children), sex for fun, and sex for love. I've managed to have all three kinds of sex with the same woman -- my wife -- so that simplifies my life. I don't condemn sex outside of marriage -- either pre-marital or extra-marital -- but often this can cause more problems than it's worth.
7. I'm persistent. I'm a slow slogger, but I usually get done what I set out to do. I do a pretty good job at being a father, husband and a teacher.
8. I used to drink a lot and take a lot of pills. It got to the stage

where it was making matters worse instead of better. Now to combat depression or anxiety I try different things, depending on the situation. I often visualize possible courses of action; pick one and then do it. Sometimes I sleep a lot. I practice my relaxation exercises. I keep in fair physical shape. Often I talk it over with someone close. With anger I often do the same things, but sometimes I just let it out -- holler and swear -- get it off my chest.

9. I don't have high, exuberant occasions of happiness. Yet most of the time I'm happy. When things are going well for myself and my family -- I'm happy. Last year when I went to university was perhaps one of my happier years, but my wife had medical problems, so it wasn't great all year.
10. Friendship is not high on my list of priorities. Most things I do are with my family or by myself. I believe friends should exchange personal, intimate matters and keep them a secret.

*Note: These self-disclosures were rated for intimacy, breadth, & time, and the means were respectively 1.95 rating points, 7.85 statements and 30.32 seconds.

Appendix 9

Rating Scale for Rating the
Intimacy of Self-Disclosure

Rating

- 0 Not At All Intimate. A self-disclosure people would probably be willing to make to anyone - even to someone they did not know at all or to someone they did not like or did not trust.
- 1 Slightly Intimate. A self-disclosure people would probably only make to someone they knew and liked, such as the majority of their acquaintances.
- 2 Intimate. A self-disclosure that is definitely intimate but one which cannot be classified as either slightly intimate or very intimate.
- 3 Very Intimate. A self-disclosure people would probably only make to a person with whom they are very close and intimate - for example, a very close friend, a favorite brother or sister, a compatible spouse, or someone else who was liked and trusted very much.