



National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

**THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED**

Ottawa, Canada
K1A 0N4

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université-nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

**LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE**

INTIMACY LEVEL AND PAST VERSUS PRESENT
ORIENTATION OF SELF-DISCLOSURE
IN A DYADIC ENCOUNTER

by Yvonne A. Labelle

Masters Thesis presented to the School
of Graduate Studies of the University
of Ottawa as partial fulfillment for
the Masters of Arts Degree

Ottawa, Canada, 1979

© Y.A. Labelle, Ottawa, Canada, 1979

ACKNOWLEDGEMENTS

I wish to express my gratitude to Mr. Gilles Chagnon whose encouragement, "positive strokes", and helpful suggestions were constructive assets in the completion of this project.

I also send special thanks to Don Boulet who communicated his energy to me, who answered my innumerable questions, and whose questions made me move a step further to find the answers.

Eight persons gave freely of their time and good-naturedness in becoming the confederates of this study. To these, I am most grateful and want to mention each individually: Arlette Bélanger, Michelle Sirois-Berliss, Claudine Breton, Lise Laurin, Denise Messier, Linda Poitras, Diane Labelle Roller, and Pauline Stoychess.

A word of thanks also to Dr. Edwards, Ann Hurd, and Stephan Roller who gave their help for special parts of my thesis.

Finally, a sincere and heartfelt thank you to my sister, Diane, and to my friends, especially Claudine, who were always there when I needed them.

CURRICULUM STUDIORUM

Yvonne Labelle was born February 23rd, 1952 in St. Norbert, Manitoba. She received her Bachelor of Arts Honours from the University of Manitoba, Winnipeg, Manitoba in 1974.

TABLE OF CONTENTS

List of Figures.....	v
List of Tables.....	vi
Abstract.....	vii
Introduction.....	ix
I. REVIEW OF THE LITERATURE.....	1
A. Self-disclosure in General.....	2
1. Importance and definition.....	2
2. Personality construct or process variable....	5
3. Dimensions.....	7
4. Independent variables affecting self- disclosure intimacy.....	9
B. Reciprocity in Self-disclosure Intimacy.....	11
1. Theory.....	12
a. Interpersonal attraction.....	12
b. Equitable exchange.....	13
c. Modeling.....	15
2. Research.....	16
a. Self-disclosure as a stable construct: self-report instruments.....	17
b. Modeling of self-disclosure: one-step removed procedures.....	21
c. Intention to be intimate in self-disclosure: pre-rated intimacy levels.....	23
d. Actual self-disclosure intimacy: in-process measures.....	29
e. Concluding remarks.....	41
C. Present versus Past Time Orientation.....	42

1. Theory.....	44
2. Research.....	48
a. Time immediacy and positive attitudes or adjustment.....	49
b. Time immediacy and perception of threat..	53
D. Conclusion and Hypotheses.....	54
1. Hypothesis 1.....	56
2. Hypothesis 2.....	57
II. EXPERIMENTAL DESIGN.....	58
A. Subjects.....	58
1. Confederates.....	58
2. Practice and experimental subjects.....	58
B. Procedure.....	59
1. Dependent measures.....	59
a. Pre-rated intimacy levels of items from Taylor and Altman, 1966.....	59
b. Number of self-references per minute.....	70
2. Randomness verification.....	74
3. Preliminary training stage.....	76
4. Experiment proper.....	81
a. Location and arrangement of apparatus....	81
b. Introductory procedure.....	82
c. Actual interview procedure.....	83
III. RESULTS.....	87
A. Randomness Verification.....	87
B. Experimental Manipulations Check: Post-interview questionnaire.....	88

1. Perceived intimacy level: Question A.....	91
2. Perceived time orientation: Question B.....	95
C. Pre-rated Intimacy Levels.....	98
D. Number of Self-references per Minute.....	103
E. Correlation of Two Dependent Measures.....	107
IV. DISCUSSION.....	111
A. Hypothesis 1.....	111
B. Hypothesis 2.....	112
C. Suggested Improvements.....	115
1. Measures of intimacy in self-disclosure.....	115
a. Pre-rated intimacy levels.....	115
b. Number of self-references per minute.....	115
c. Additional measures.....	116
2. Experimental procedure.....	118
a. Naïve subjects.....	118
b. Confederates.....	119
c. Baseline and experimental trials.....	120
d. Check on effectiveness of deception.....	122
D. Future Research Possibilities.....	122
Bibliography.....	125
APPENDIX.....	134
A. Instructions for High-Present Confederates.....	134
B. Instructions for Low-Present Confederates.....	136
C. Instructions for High-Past Confederates.....	138
D. Instructions for Low-Past Confederates.....	140

E. Instructions for Naive Subjects.....	142
F. Forty-five Item Self-disclosure Topic List.....	145
G. Subject's Answer Card.....	148
H. Post-interview Questionnaire.....	149

LIST OF FIGURES

1. Illustration of Means of Naive Subjects' Perceptions of Confederates' Intimacy to show Interaction Effects..... 93
2. Illustration of Adjusted Means of Number of Self-references per Minute to show Interaction Effects..... 108

LIST OF TABLES

1.	ANOVA: Pre-rated Intimacy Scores in the Baseline Period.....	89
2.	ANOVA: Number of Self-references per Minute in the Baseline Period.....	90
3.	ANOVA: Subjects' Perceptions of Confederates' Degree of Intimacy, Post-interview Questionnaire	92
4.	ANOVA: High Treatment Subjects' Perceptions of Confederates' Degree of Intimacy, Post-interview Questionnaire.....	94
5.	ANOVA: Low Treatment Subjects' Perceptions of Confederates' Degree of Intimacy, Post-interview Questionnaire.....	96
6.	Chi-square Analysis on Subjects' Perceptions of Confederates' Time Orientation.....	97
7.	Difference of Proportions Test on Subjects' Perceptions of Confederates' Time Orientation....	99
8.	Actual Means and Standard Deviations of Pre-rated Intimacy Levels.....	100
9.	Adjusted Means of Pre-rated Intimacy Levels.....	101
10.	Analysis of Covariance with Repeated Measures on the Pre-rated Intimacy Levels.....	102
11.	Actual Means and Standard Deviations of Number of Self-references per Minute.....	104
12.	Adjusted Means of Number of Self-references per Minute.....	105
13.	Analysis of Covariance with Repeated Measures on the Number of Self-references per Minute.....	106
14.	Analysis of Covariance with Repeated Measures on the Number of Self-references per Minute for High Treatment Subjects.....	109
15.	Analysis of Covariance with Repeated Measures on the Number of Self-references per Minute for Low Treatment Subjects.....	110

ABSTRACT

The purpose of the present study was to investigate the influence of varying one person's intimacy and time orientation in self-disclosure on another person's consequent self-disclosing intimacy.

In the experiment proper, 56 female, French-speaking, university students were each paired with one of eight trained female confederates for a 30-minute self-disclosure encounter. The naive subjects received: (a) either high or low intimacy level disclosures from their partners, and (b) either past- or present-oriented revelations. This yielded a 2 (intimacy level) by 2 (time orientation) design with 14 subjects per experimental treatment.

Subjects self-disclosed in a pretreatment or baseline session and then three experimental trials with each preceded by the confederates' sessions. Based on all four self-disclosure periods, the two dependent measures for degree of intimacy were: (a) Taylor and Altman's (1966) pre-rated intimacy levels, dependent on topic choice, and (b) number of self-references per minute, an in-process variable.

With both dependent scores, an analysis of covariance with repeated measures was performed. In both cases, intimacy level in self-disclosure of a naive subject was significantly affected by intimacy level manifested by a trained confederate. A main effect due to time orientation

of disclosure content was not found in the overall analyses. However, in high intimacy groups, subjects became more intimate and perceived greater intimacy from their partners when the latter revealed only present- as opposed to past-related information.

The findings, therefore, support the notion of a reciprocity or dyadic effect in self-disclosure intimacy and suggest that present disclosures of a personal nature engenders more intimacy from a dyadic partner than high intimacy revelations focussing only on past events or feelings.

INTRODUCTION

This study investigates the effect of variations in two dimensions of the content of one person's self-disclosure on another person's intimacy level of self-disclosure. These two independent variables are: the degree of intimacy in self-disclosing communication and the time orientation of the self-disclosing content, that is, specifically, whether it relates to the individual's past or present situation. The context within which this focus is made is a dyadic encounter between two strangers. Although the setting and procedure is necessarily structured, considerable freedom of interaction was allowed. Thus, the situation could be thought to simulate how a personal relationship develops as a consequence of self-disclosure.

In order to put forth the specificities of this project, this paper is divided into four chapters. Chapter I presents the theoretical underpinnings that explain how people usually self-disclose, and, as such, give the foundation in the development of the main hypotheses of the present study. Also, in an integrative fashion, this section reviews the relevant research findings dealing with intimacy in self-disclosure and its relation to both other's intimacy and time orientation of disclosures. All this leads to the formulation of two hypotheses that link the above variables.

In Chapter II, the research procedure is outlined. This includes a discussion of: (a) the selection of naive

- x subjects and confederates, (b) the description of the two dependent measures of intimacy in self-disclosure: pre-rated intimacy levels and number of self-references per minute, (c) the usefulness of having a pretreatment, baseline trial to obtain an initial indication of the subjects' characteristic level of disclosure with strangers, and (d) the detailing of the procedure, both the training of the confederates and the stages of the actual encounter between the naive subject and the confederate.

The next chapter concerns itself with the results from the statistical analysis of the data. Chapter III separately looks at: (a) baseline, pretreatment levels with the prediction of no differences between groups; this ensures randomness as to individual's predisposition for a certain depth of disclosure, (b) post-interview questionnaire responses to test out the effectiveness of the experimental manipulations from the double perspective of confederates' intimacy level and time orientation in self-disclosures, (c) analyses based on the two dependent measures, taken individually; these follow directly from the two hypotheses of the study, and (d) a computation of the correlation coefficient to show the degree of association between these two variables.

Lastly, Chapter IV provides a discussion of the results brought forth. The interpretations follow through from a norm of reciprocity framework and a Gestalt view-

point. The importance of a communicator's intimacy level and a present perspective with higher intimacy disclosures is stressed. Improvements and alternatives in the present design are suggested, as well as some future research possibilities.

The area of self-disclosure and especially of intimacy level and time orientation of self-disclosure is a fruitful one for psychological research; and it is hoped that this study has made a contribution in this respect.

CHAPTER I

REVIEW OF THE LITERATURE

The aim of this chapter is to formulate hypotheses linking both intimacy level and time orientation in a confederate's self-disclosure to the intimacy level of self-disclosure of a naive dyadic partner. It begins with a global perspective and narrows down to the crucial focus of this study. Thus, at first, the target of discussion is self-disclosure as a whole: the importance of this behavior, its definition, self-disclosure as a personality construct versus a process variable and its basic parameters. The purpose of this overview is to identify the main facets of self-disclosure, to allow one to gain understanding of its relevance to all interpersonal relationships, and, later, to arrive at a better perspective of why intimacy of self-disclosure (one of its parameters) may be so influential in one's social behavior. In regards to the latter point, intimacy, as such, will then be given full consideration, specifically in terms of shared or reciprocal intimacy. Questions answered will be: in what way can degree and form of intimacy in self-disclosure be explained theoretically and what are the variables that, through research, have been found to affect intimacy in self-disclosure. Attention will then be directed to one of these variables: intimacy level of the content of self-

disclosure. What has traditionally been emphasized in this cellular component is the intimacy of specific topics and of general content. A rationale is presented recommending a further dissection of degree of intimacy in self-disclosing content to probe the importance of past versus present disclosures. Following through from Gestalt and client-centred approaches, one would expect disclosures of different time perspectives to affect another person's self-disclosure differentially. After this elaboration, the hypotheses for this research are specified, as deduced from the discussion.

Self-disclosure in General

Importance and Definition

The first query that could be made is: why self-disclosure? Why not look at intimacy of social behavior as a whole? In the last few decades, voluminous research has been published on self-disclosure. Theories have evolved matching the manifestation of appropriate self-disclosure to positive mental health and to the ability to form good interpersonal relationships (Jourard, 1971b; Derlega & Chaikin, 1975). Self-disclosure is assumed by many to hold a key position in friendship formation, marital harmony, positive personality change in psychotherapy, and effectiveness of experiential groups. Beyond this assertion, there is much controversy surrounding these issues and it is not the purpose here to expose the

intricacies of each situation. To do so, one can refer to reviews by Jourard (1971a), Cozby (1973), and Derlega and Chaikin (1975). Rather, this paper deals with self-disclosure between strangers. Since relationships originate with first encounters, studying what happens when two persons meet for the first time spans into an understanding of the above-mentioned areas. However, a look at the initial interaction between strangers not only provides an insight of the cornerstone for the process of building relationships; it also has the advantage of being simpler to investigate. This is so because, by definition, such an interaction is free from effects of past encounters which would be impossible to evaluate a posteriori. The above has underlined how crucial self-disclosure is as a social behavior. The centrality of intimacy in self-disclosure will be investigated more fully at a later time. At this point, it seems mandatory to provide some definition of our global focus of self-disclosure.

A general definition of self-disclosure is: "any information about himself which Person A communicates verbally to a Person B" (Cozby, 1973, p. 73). Jourard and Jaffe (1970) stipulate that Person A must "willingly" want to make himself known to Person B. Allen (1974) supports this notion by stressing that self-disclosure involves only the "uncoerced" exchanging of personal information. A further aspect of self-disclosing communication should be

noted, that of honesty. Pearce and Sharp (1973) emphasize that those strategies used by an individual to distract or shock his listeners through the information he reveals about himself do not invite the respondent to share empathically. Such maneuvers are not examples of self-disclosure. Supporting this, Gitter and Black (1976) have used the term "gilding" to describe "communicative behavior intended by the communicator to falsify what he actually believes to be true" (p.327). An example of this may be that of a veteran soldier who seeks others' positive attention by glorifying his account of past war experiences. From the above, one might now redefine self-disclosure as: "any verbal information about himself that Person A willingly and honestly communicates to Person B."

This definition was used in the instructions to the subjects involved in the present research. Asking people to self-disclose without specifying further what is meant by this term could result in various individual interpretations. For example, Fantasia and Lombardo (1975) found significant differences in disclosure levels between one group who was asked what each was "willing" to discuss and another group instructed to indicate what each would "like" to discuss. Thus, the definition employed here could eliminate such variations yet still leave a nearly unlimited degree of flexibility in a subject's deciding what and how to self-disclose. At this point, one has generally answered the

question: what is self-disclosure? One is still left wondering whether such behavior reaches a stable level within a person or whether it varies depending on the situation.

Personality Construct or Process Variable

Restated, this could be expressed in terms of whether self-disclosure is a personality construct or a process variable. If one believes that a person, through his experiences, integrates into his self-concept an individual and therefore a unique form of self-disclosure, then one is viewing the concept as a personality trait. As such, it is seen as a fairly stable entity that varies somewhat situationally but maintains basic constancy in level and form. Research congruent with this approach tries to assess individual differences in self-disclosure and uses such measures as Jourard's Self-Disclosing Questionnaire (Jourard and Lasakow, 1958). One variable that has been repeatedly investigated in this connection is sex. In general, studies have found that females self-disclose to a greater extent than males (Sermat and Smyth, 1973; Lord and Velicer, 1975; Lombardo, Franco, Wolf, and Fantasia, 1976). However, the differences may be chiefly related to topics of high intimacy value (Gitter and Black, 1976). This might explain why some research has found no significant differences between males and females (Rogers and Wright, 1976). It should be noted that no studies were found to

support the hypothesis that males disclose on the overall more than females. Given these fairly consistent results, only females were included in the present study. This controls for the afore-mentioned possibility of gender differences and maximizes the chances of having subjects who are more willing to self-disclose. Other areas focussing on self-disclosure as a personality construct are: race, ethnic group, social class, age, marital status, birth order, religion, personality characteristics (for example, extraversion versus introversion), and mental health (Cozby, 1973; Goodstein and Reinecker, 1974). In the present research, subjects were from one ethnic group and religion and within a certain age range. The other variables were not controlled for specifically and were assumed to be randomized in the sample. As discussed further in the second chapter, results suggest that extremely high levels of self-disclosure are negatively correlated with positive mental health so that a certain limitation was set in defining high intimacy for the confederates in the present procedure. Apart from these stipulations of interest in experimental controls, the real focus of this paper is on self-disclosure as a process within a social interaction. This orientation prefers to look at self-disclosure as a behavior that varies in form and level given different occasions and situations and depending on the stage of and type of relationship. Without negating influences due to

an individuals' characteristic level, the process outlook assumes greater flexibility for individuals to change how and what they reveal about themselves depending on the nature of each social interaction. With this perspective, research concentrates on the variables that can contribute to these changes in level and form of self-disclosure. In other words: what aspects of a situation affect a person's self-disclosure and in what way does it do so? For this study, the aspects considered will be content and topic intimacy level and time orientation of a confederate's self-disclosure as influences on a naive subject's form of self-disclosure.

Dimensions

This leads one to wonder what form self-disclosure can take. To say someone tended to be a high self-discloser in a certain situation has no precise meaning. For example, one may self-disclose on a wide array of topics but remain vague and noncommittal on each. Or, one may reveal very personal information on a few areas of one's life but keep other realms completely hidden from the other person. Are either or both high self-disclosers? This example illustrates the difficulties involved in realistically talking about self-disclosure as a unidimensional concept and, not surprisingly, results are difficult to compare as a consequence. In order to counter such problems and reach a better understanding of the nature of self-disclosure, it is

possible to break the concept down into some basic dimensions.

In this respect, Cozby (1973) postulates three main parameters: (a) breadth or amount of information disclosed, or, how many areas or aspects of his life does an individual self-disclose about; (b) depth or intimacy of information disclosed or to what extent does an individual self-disclose in each area, for example, does he reveal private information that would not otherwise be readily available to the other; and (c) duration of time spent describing each item of information. To this list, Chelune (1975) has added two more. He asserts that the affective or emotional manner of presentation is a crucial element in self-disclosing communication. One may vary from being defensive and mechanistic to displaying greater spontaneity and affect.

A final parameter of self-disclosure is the flexibility of the disclosure pattern shown in a person's ability to adjust or adapt to situational changes. As previously stated, this paper zeroes in on the reciprocity of intimacy level involved in self-revelations. As a corollary, it will be hypothesized that intimacy level is affected by changes in time reference, that is, whether an individual self-discloses on past or present events and feelings.

This will be clarified at a later point, after exposing some of the other process variables that influence people's depth of self-disclosure in a dyadic encounter.

Independent Variables Affecting Self-disclosure Intimacy

Goodstein and Reinecker (1974) summarize these independent variables under four main headings. These are: (a) the attributes of the recipient or target of the disclosure; (b) the characteristics of the disclosing persons and how they interact; (c) the properties of the situation; and (d) the content or topic of the disclosure. Before proceeding to an investigation of the last-mentioned area of research which directly concerns the subject matter of this paper, a cursory look is taken of the areas involved in the other three subdivisions using previously noted reviews by Cozby (1973) and Goodstein and Reinecker (1974) as well as more recent studies not reviewed. Only results of those areas relevant to the present research will be presented.

In terms of the interactant receiving self-disclosing information, important criteria are: (a) the relationship he has with the discloser, as in the degree of acquaintance (Brockner and Swag, 1976; Lombardo et al., 1976), specifically with family members (Wiebe and Scott, 1976) or in comparing family versus friends as targets (Pederson and Higbee, 1969; Woodyard and Hines, 1973; Lord and Velicer, 1975); (b) the degree of liking for the target (Kohen, 1975; Daher and Banikiotes, 1976; Walker and Wright, 1976); (c) his sex (Brooks, 1974; Kraft and Vraa, 1975; Derlega and Chaikin, 1976; Walker and Wright, 1976). In relation to this last,

several studies have found that females receive self-disclosures more frequently from their same-sexed friends than from male friends, but this was often using measures of reported self-disclosure. Brooks, however, reported contrary results with females disclosing more to males. The overall picture is fogged up by important factors such as the use of various measures and level of acquaintance of participants. What seems clear is that sex of the recipient of self-disclosure can affect the degree to which another will reveal him- or herself. To eliminate effects due to this factor, only females were chosen as target persons, that is, as confederates in the present study.

Secondly, interacting characteristics of the dyad members may be considered from the point of view of: (a) their personalities (Schneider and Eustis, 1972; May and Thompson, 1973; Becker and Munz, 1975) and (b) their relative status positions as seen from their perceived roles (Brooks, 1974).

A variety of situational variables also affect the degree of self-disclosure by the participants, for example, (a) the privacy of the setting and (b) the physical distance between the discloser and the target. Other relevant factors are the following: (c) instructions given, that is, whether descriptive and/or demonstrative, as in modeling (Fantasia and Lombardo, 1975; McGuire, Thelen and Amolsch, 1975; Stone and Gotlib, 1975; Zarie and Boyd, 1977); (d) subjective

expectancies of outcome, that is, whether favorable or not (Kent, 1975; Smith & Lewis, 1974); (e) social approval of the reinforcement of disclosure (Bundza & Simonson, 1973; Taylor, Altman, & Sorrentino, 1969); (f) timing of the target's disclosure, specifically whether early or late in the session or series of encounters (Jones & Gordon, 1972; Mann & Murphy, 1975; Wortman, Adelman, Herman, & Greenberg, 1976).

Finally, one comes to the degree of intimacy of the self-disclosure topic or content of one interactant as affecting another's intimacy level. Since a main hypothesis of this paper involves this effect, a separate section is reserved for a thorough investigation of this particular area of research.

Reciprocity in Self-disclosure Intimacy

In question form this process of shared intimacy could be exemplified as: how does the intimacy level in content of Person A affect the intimacy level of Person B when both are self-disclosing? Research in this area is profuse and has given support for a reciprocity effect whereby partners in a first encounter interact at similar intimacy levels. Stated generally, Jourard (1971b) calls this mutuality in interpersonal communication the "dyadic effect" which essentially means that "disclosure begets disclosure". Before reviewing the relevant literature of reciprocity in depth of self-disclosure, the theoretical frameworks which explain this phenomenon are stated. It should be noted

that this dyadic effect has also been evidenced when breadth of self-disclosure was the dependent variable (Chittick & Himelstein, 1967; Mann & Murphy, 1975).

Theory

The reciprocity of intimacy in self-disclosure can be interpreted from numerous standpoints. One of these is disinhibition theory by Bandura and Walters (1963), which receives mild support from Bröckner and Swag (1976). However, the three main explanations revolve around: (a) interpersonal attraction (Thibaut & Kelley, 1959; Worthy, Gary, & Kahn, 1969) which involves crucial notions of liking and trust; (b) equitable exchange, a follow-through from Gouldner's (1960) norm of reciprocity; and (c) modeling based on situational demand characteristics (Rubin, 1975). These are discussed in the following paragraphs. It is the contention here that all three play a part in determining the intimacy level of social interactions, depending principally on the situation, for example, the degree to which it is structured, and on the type and stage of the relationship involved.

Interpersonal attraction. An interpersonal attraction perspective considers intimate disclosures to be positive outcomes of an interaction process. In themselves, such disclosures are typically revealed only to friends, that is, people who more readily respond with positive feelings which constitute rewards for one's revelations. That greater

rewards are associated with greater interpersonal attraction becomes a two-way transaction. On the one hand, an individual would initially disclose more personal revelations to those for whom he experiences greater liking and trust. This can be understood since there are risks inherent in disclosing intimate details of one's life. By self-disclosing, one adopts a vulnerable position; the other can respond with rejection or open ridicule. Thus, an individual must trust that such costs will not incur, but instead, that the other will reinforce such disclosures, typically by expressing positive feelings toward him. This becomes the second part of the interaction process: liking and trusting more those people who have shared intimate self-disclosures with you. Simply put, one can summarize this position as: Person A likes and trusts Person B; therefore, Person A self-discloses to Person B; and, Person B receives Person A's self-disclosures, therefore, Person B also likes and trusts Person A, which then leads to self-disclosure by Person B. Since many studies have tried to compare the three viewpoints, research lending support or contradicting this perspective will be reported after exposing the two other frameworks.

Equitable exchange. The notion of equitable exchange is rooted in what Gouldner (1960) has named the "norm of reciprocity". This position negates that liking is necessary for mutual self-disclosure intimacy to occur between two persons. Rather, according to Gouldner, in any stable social

system, persons have internalized a specific norm of reciprocity which morally obliges them to give benefits to those from whom they have received them. What happens is as follows. When one party benefits another, an obligation is generated. Inequity has replaced a balanced relationship and the indebted recipient seeks to reduce the tension this inequity creates by repaying his donor. Specifically, giving self-disclosure to another is a benefit producing inequity; this can be re-established by responding or paying it off with self-revelations. Since this is indeed a norm and thus generalized, the person who first parts with valuable and personal information has realistic grounds in having confidence that he will be repaid with similar information. Unlike the interpersonal attraction theory, social exchanges in this point of view are seen as independent of liking. Liking could be a consequence of the process but it is not the motivating force directly inciting persons to self-disclose. The similarity in the two approaches lies in the perception of intimacy of self-disclosures as a reward or benefit; the more intimacy, the greater the reward. Such a general standpoint is taken by Altman and Taylor (1973) in their social penetration theory. Their general hypothesis is that:

Interpersonal relationships develop systematically over time, with gradually increasing mutual interpersonal exploration by dyad members via exchange

of personal information, expression of affect, engaging in joint social activities, etc. The basic developmental process is hypothesized to involve increased amounts of interpersonal exchange (breadth of penetration) and increasingly intimate levels of exchange (depth of penetration). (Taylor & Altman, 1966, p. 1-2)

However, this does not imply that depth or intimacy of self-disclosure is reduced to a mechanistic consequence of the time duration and number of interpersonal transactions. Rather, the process depends on the personal characteristics of the participants and the situational context. Also, it is associated with rewards and costs experienced during mutual exchanges so that an equilibrium or asymptotic level is reached when costs involved overtake the benefits received in the relationship. On the whole then, this theory might best fit into the equitable exchange framework.

Contrary to the above two outlooks, the modeling viewpoint does not visualize self-disclosure as a positive payoff in social encounters.

Modeling. Within a structured, familiar environment, one has learned how to act correctly. Yet, in an unstructured, novel setting, no set guidelines aid the participants to tell them how they should or are expected to behave. According to some researchers (e.g. Rubin, 1975), a laboratory experiment dealing with an undefined concept like "impression formation", a typical introduction for

self-disclosure studies, is a prime example of the latter situation. Lacking explicit norms of appropriate behavior, participants in a psychological experiment will look to one another for cues in order to determine what sort of response is called for. In this way, the intimacy level of self-disclosure of a first speaker becomes a clue concerning the demands of the situation. In a dyadic encounter, the second speaker can then model himself to his partner by responding with a similar depth of disclosure. This theory of normative information regards the dyadic effect as an outgrowth of the situational demands of an experimental setting and not as a generalized process that is part and parcel of all social interactions. Consequently, such an interpretation greatly undermines the importance that could otherwise be given to this area of literature. It becomes necessary, at this point, to look at the studies that support or fail to support these three theories. Such a review serves a dual purpose of affirming the existence of reciprocity in intimacy of self-disclosures which is one of the hypotheses raised in the present study.

Research

The order of presentation of the research is in terms of the measures employed. As previously cited, different instruments may be tapping different aspects of self-disclosure intimacy. To group these studies together would only be to confuse any interpretations that could be made.

Initially, self-report measures will be dealt with briefly. One study will then be mentioned that combines a self-report and a more objective measure in its design. These indices may be considered to be one-step-removed from the actual process of a self-disclosure exercise. Those studies reviewed next promoting a modeling standpoint also fall in this category, although from a different perspective. Getting closer to in-process variables, that section of the literature making use of pre-rated intimacy levels as the dependent measure will then be reported on, as well as those including this measure along with other parameters of self-disclosure, that is, not intimacy. Finally, one comes to research that focusses only on actual self-disclosure intimacy, either through judges' ratings, or a set of indices zeroing in on the ongoing intimacy levels of the participants. All of these will, if possible, be evaluated in terms of which theory they best support. Conclusions will then be drawn based on this extensive review. This will lead to the formulation of the first hypothesis of the present study and is, in itself, a necessary preliminary basis for the development of the argument for postulating the second hypothesis.

Self-disclosure as a stable construct: self-report instruments. With measures of reported self-disclosure, the usual procedure is one in which the subject indicates to whom and at what level he has disclosed in the past or is

willing to disclose to some hypothetical target person in the future. Under this heading, partial support for a social attraction interpretation is found in studies which show that self-disclosers are liked and trusted more than non- or lower self-disclosers (Halverson & Shore, 1969; Johnson & Noonan, 1972; Stephan, Lucker & Aronson, 1976; Walker & Wright, 1976). However, as stated previously, this part of the theory can still coincide with an equitable exchange framework as both assume self-disclosure to be a positive outcome. Evidence that reinforces the belief in a norm of reciprocity was found by Chaikin and Derlega (1974a). When 104 subjects viewed two female confederates self-disclosing in a videotaped session, they rated the second speaker more favorably when she matched the first speaker's level of intimacy, whether high or low. These studies suggest that persons who self-disclose and who conform to a norm of reciprocity are liked more. It is still necessary to prove that this would automatically cause people to self-disclose in return.

A corollary of interpersonal attraction theory is that persons who disclose at deep levels are trusting of others. Scant support for this is that, out of a total of 44 subjects, the high disclosers, as defined by Jourard's Self-Disclosing Questionnaire (JSDQ) were more apt to volunteer for a Behavioral Trust Task which consisted of falling backwards into the arms of another person (Cash, Stack, & Luna, 1975).

Stronger evidence for this postulate was reported by Banikiotes and Daher (1974). Subjects classified as high, medium, or low self-disclosers from their JSDQ scores rated protocols of varying levels of intimacy. Positive correlations were found between interpersonal attraction and both amount of disclosure by the other and similarity in content disclosure level of discloser and recipient of disclosure. Using an inventory with questions pre-rated for intimacy level, Daher and Banikiotes (1976) again found parallel results with 48 female subjects.

On the other hand, Derlega, Harris, and Chaikin (1973) negated social attraction predictions in favor of a norm of reciprocity. Female subjects reported a greater increase in their willingness to self-disclose after a high-revealing confederate spoke, even though the high but deviant discloser was liked less than a low but conventional discloser.

On the whole, the majority of the above lean towards a social attraction interpretation. However, the credibility of these findings can be seriously questioned since reported and actual self-disclosure appear to be unrelated measures for the most part (Ehrlich & Graeven, 1971; Hurley & Hurley, 1969; Jourard & Jaffe, 1970; Vondracek, 1969). Evidence for any theoretical position that purports to show that the intimacy level of one person's self-disclosure is reciprocated by another should come from a more direct measure of self-disclosure occurring during an encounter between these two

persons.

A cross between a self-report measure of disclosure to "some" target person and an objective measure of ongoing disclosure can be found in Jourard and Resnick's (1970) research. This is an often quoted example of one of the first demonstrations of the dyadic effect, and, for this reason, is given some attention here. The index used was a combined one including subjects' ratings of their own feelings and response levels and their partner's response after an interview plus the pre-rated intimacy levels of Taylor and Altman's items (1966). Out of 80 female subjects, 12 were defined as high and 12 as low disclosers according to some preliminary task. Then same level disclosers were paired together and indeed low dyads were found to display less intimate self-disclosures than high dyads. Two weeks later, new dyads were formed containing one high and one low discloser. In this case, high disclosers maintained their high level but lows significantly increased in self-disclosures so as to match more appropriately their partner's level. This lends support to a reciprocity process in self-disclosure and suggests that the usual trend might be in terms of lows joining highs rather than a perfect compromise between the two being reached. Such an inference follows through from a social penetration framework and will be considered in greater detail in later reported studies. In regards to the present-quoted paper, one can question the

validity of the findings on the basis of the a priori labelling of the subjects as high or low disclosers without acknowledgement of variations in characteristic levels with different situations and dyadic partners. Also, given the various parameters of self-disclosure, there is confusion as to which one or ones are being inferred here in the general term self-disclosure.

Modeling of self-disclosure: one-step removed procedures.

In the experiments mentioned above, intimacy in self-disclosure is regarded chiefly as a stable construct.

Following this assumption, measuring of self-disclosure depth has not focussed on the actual situation. Thus, in the final analysis, one is looking at a one-step-removed index of intimate self-disclosure and comparing it to in-process variables such as degree of liking for the dyadic partner or the confederate's actual level of disclosure. In this light, results are barely tenable. The need for the exclusive use of direct in-process variables cannot be emphasized enough. Several studies that have investigated modeling effects on self-disclosure have failed to fulfill this need (Doster & Brooks, 1974; McAllister & Kiesler, 1975; McGuire et al., 1975; Stone & Gotlib, 1975).

All of these have attempted to relate measures of actual self-disclosure and absence or presence of a model or of instructions in a preliminary session. Their design is as follows: (a) phase one: experimental subjects receive

some form of descriptive or demonstrative instructions (usually a videotaped model) whereas control subjects are left with no or minimal information; (b) phase two: measures of actual self-disclosure intimacy on all subjects are taken in a subsequent interview where they are matched with a confederate or, as in Stone and Gotlib's study, merely talk into a tape recorder. The confederate in the three other studies listed did not self-disclose at all and, in fact, essentially did not interact with the naive subjects. Intimacy was computed mainly from judges' ratings from the Disclosure Rating Scale (Doster & Strickland, 1971). In all cases, subjects having received instructions and/or modeling promoting self-disclosure manifested greater depths of self-disclosure than control or weaker treatment subjects. What this indicates is that individuals will be more personal if told or shown how to do so. Here, one is responding to explicit demand cues; there are set guidelines. The situation is different in an unstructured setting where a person might model himself to the degree of intimacy of his partner because he has no other standards or clues for appropriate behavior. Only by demonstrating the latter would one prove that reciprocating self-disclosure is a direct consequence of conforming to an actual partner's intimacy level. The above studies on modeling have not done so. Below, one comes to research procedures that overcome this weakness in that both dependent and independent variables are process elements

measured in the actual situation and involving only the interacting members.

Intention to be intimate in self-disclosure: pre-rated intimacy levels. One measure of intimacy in self-disclosure occurring in the situation itself is the pre-rated intimacy levels of topics, usually a sample of the total pool of items developed and standardized by Taylor and Altman (1966). This was employed in the present study; a discussion of its strength is delayed until the next chapter. For now, results of previous research utilizing this dependent measure are brought forth.

Worthy, Gary and Kahn (1969) found support for an interpersonal attraction interpretation based on Thibaut and Kelly's (1959) social exchange theory. Following ten minutes to get acquainted, 12 groups of four females rated each other on a liking scale. Each group then had 10 trials where each subject could choose questions of varying intimacies to answer to a preferred group member. The procedure of disclosure was by passing notes without any verbal interaction. Afterwards, each again indicated her liking for each of her three partners. An analysis of variance revealed that more intimate initial disclosures were made to those who were initially better liked. Also, final liking was higher for those who made more intimate disclosures. A highly significant F ($p < .001$) strongly supported the norm of reciprocity notion. Certner (1973)

duplicated the above using both all-male and all-female groups of four and obtained identical findings. All this affirms that self-disclosure functions as a social reward. In both studies, the method of disclosure was through note-passing which can be criticized on the grounds of artificiality of interaction. One must also question whether the interpretations drawn from these studies involving groups of four can be applied in a parallel fashion to the dynamics of dyadic relationships.

Cozby (1972) employed Worthy et al.'s items but with a different experimental design. Thirty-one female subjects were exposed to experimenters pre-trained at low, medium, or high intimacy disclosing levels and then chose items on which they were willing to disclose to their partners. Afterwards, they completed an impression-formation scale of their liking for each experimenter. Results display a curvilinear relationship between disclosure and liking. Reciprocity was manifested at all levels yet became less of a determining factor in relation to a high-disclosing other, as demonstrated by significant linear ($F = 128.75, p < .001$) and quadratic ($F = 11.47, p < .005$) trend analyses. This could be because he was liked less and seen as less well-adjusted. Most of the findings reported so far give some leverage to a social attraction outlook. However, in Cozby's study, liking alone does not explain why reciprocity would occur at all at the high level. This experiment lacks the

naturalness of a face-to-face encounter and views only the effect of the intimacy value of topics chosen by an experimenter and not actual content.

In order to continue the review of the literature using pre-scaled intimacy values as a dependent measure of self-disclosure intimacy, two studies by Davis (1976, 1977), using 96 and 70 subjects respectively, can be cited. Both employ a similar procedure and favor a social penetration interpretation. Like-sex dyads composed of naive subjects took turns speaking on 12 self-disclosure topics selected from a 72-item list. With time, within a single interview, subjects began mutually to choose topics rated higher in intimacy as shown by significant linear trend F tests. An analysis of this reciprocity signalled that the matching was made through role differentiation. As in Jourard and Resnick's study, the high level discloser would seem to take the dominant role unknowingly and his partner raises his level to conform. Since both studies by Davis reveal identical trends and are more natural in being without confederates, they lend credibility to Taylor and Altman's theory. They would, however, provide stronger evidence if more than one dependent measure had been used. Also, since subjects were told that the experiment dealt with the process through which people get to know one another, a situational demand factor is not altogether eliminated.

A final experiment falling in this category is a recent

one by Lynn (1978) who attempted to test the validity of the three theoretical positions by having same-sexed dyads. In a 2 x 2 x 3 design, 180 females received: (a) instructions suggesting the appropriateness of disclosing either intimately or not, that is, varying the demand cues in such a situation; (b) either positive or negative evaluation by their confederate partner, so as to test the implications of a social attraction theory; and (c) intimate or nonintimate or no self-disclosure by their partner in order to check out the norm of reciprocity or equitable exchange viewpoint. After the confederate had selected 5 topics from a 40-item list, the subjects selected 5 topics in turn on which they would be willing to self-disclose. By analyzing the intimacy levels for the subjects' topics, it was found that subjects were more willing to disclose to a high rather than a low-revealing partner, thus lending support to an equitable exchange framework. To a lesser degree yet still significantly, the normative information changing the situational demand cues also proved to be a potent determinant of disclosure intimacy. Although liking was shown to be reciprocated, it did not affect the subjects' choices of items in terms of intimacy level. This study therefore supports a two-faceted theory involving both the reciprocity norm and situational demands, with greater weight placed on the former. The major criticism of this research design lies in the fact that actual self-disclosure between partners did not take place. All that was tested was subjects'

intent to disclose on topics of varying intimacy. Also, had the confederate actually spoken on her topic selections, this could have altered the subjects' subsequent selections.

In fact, all of the above studies employing only pre-rated intimacy values as a measure of self-disclosure can be questioned. It is highly possible for a subject to select a high intimacy topic and yet only skim the surface when self-disclosing on it. The opposite is just as viable as a low intimacy topic can be discussed at great depth. Such a measure would seem to be more of an index of willingness to be intimate in self-disclosure although studies mentioned in the next chapter show its validity as a score of actual self-disclosure. The recommendation is to use such a measure in combination with other(s) more directly concerned with actual content as was done in the present study. Thus, although the studies considered so far indicate a dyadic effect, and for the most part support the notion of self-disclosure as a social reward construct, results must be interpreted with caution in the light of the measure employed.

A few studies have used the intimacy value of items along with dependent variables measuring another dimension of self-disclosure, for example, breadth. Becker and Munz (1975) obtained a significant dyadic effect with 72 subjects in terms of duration of disclosure computed as total time speaking and depth of disclosure as seen by Taylor and Altman's

11-point scale for level of intimacy of items. Taylor, Altman, and Sorrentino (1969) analyzed their results from three perspectives: duration or average time talked per session; breadth or number of items chosen; and depth or mean intimacy value of items. By varying the proportion of rewards and costs through a confederate's degree of approval of the subjects, these authors came up with evidence in favor of an overall social penetration process. Positive interpersonal experiences were significantly correlated with all three measures for their sample of 45 navy men. Some differences did exist at more specific levels between the measures; however, this is understandable given the different aspects tapped by these researchers. In Savicki's (1972) study, the experimenter responded to 60 male psychology students in one of four manners of intimacy: (a) low; (b) two levels above the subject's depth of disclosure; (c) nearly matching the subject's level; or (d) high. Instruments were Controlled Disclosure Stimulus based on items from Taylor and Altman and an index measuring actual disclosure in terms of time per exchange and latency or hesitancy before disclosing. Subjects were found to alter their intimacy in order to better match their partner in all groups, again denoting support for a reciprocity effect. In the last three studies reviewed, self-disclosure is operationally defined using both pre-rated intimacy levels, that is, a depth measure, and indices of some other

parameter of self-disclosure. It would seem more beneficial to look at research involved with a single dimension of self-disclosure, specifically, depth or intimacy level where strong support with good measures exists.

Actual self-disclosure intimacy: in-process measures.

The following represents a focus on such studies and will, therefore, permit more solid extrapolations of the role of reciprocal self-disclosure intimacy in the area of social interactions. Beginning with those simply emphasizing the existence of the dyadic effect, studies will then be brought forth directly comparing or supporting one, two or all of the theoretical frameworks. An attempt at a consensus will then be made in order to give a final evaluation in terms of fairly solid generalizations and theoretical confirmations.

Sodikoff, Firestone and Kaplan (1974) investigated the effect of interviewers who either self-disclosed or did not. In the former case, the all-male subjects responded at greater length ($p < .01$) and were rated by judges as showing greater intimacy ($p = .10$). These subjects also rated the self-disclosing interviewer more favorably. This may indicate that some self-disclosing as opposed to none is well-regarded; yet degree of liking depends greatly on type and form of self-disclosure. The discussion of this possibility is delayed until more information is presented. These authors chiefly provide a simplified example of a reciprocity effect although the probability level obtained of .10 marks this as

weak support at best.

Also using judges to rank 86 subjects' depth of self-disclosure, Sermat and Smyth (1973) performed two experiments where communication between dyadic partners was transmitted through teletypewriters. The highest rated questions and statements in response to confederates were extracted from the content analysis of the material according to an analysis of variance with an alpha level of .05. Subjects increasingly disclosed at a more intimate level in their questions and answers when confederates exceeded these subjects' initial level. Subjects paired with confederates who merely matched the subjects' first level showed little change. In a similar procedure, the authors trained their confederates to encourage disclosure in the subjects with either minimal or matching self-disclosure on their part. In this case, no significant differences occurred in the subjects' self-disclosure level although they reported being more intimate in the matching group. This goes along with previously quoted research where subjects usually changed their self-disclosure depth only in an upward direction, that is, when paired with a higher discloser. Although the method of teletypewriters has the advantages of greater experimental control with significant content, it subtracts from the fluidity of a common social interaction. Another critique lends itself to the novel method of analysis giving special consideration to the highest self-disclosing statements; it needs to be

validated with more tested methods.

With 24 males and 24 females paired with a male confederate, Feigenbaum (1977) varied the interviewer's style in two ways: reflecting or disclosing. The interview consisted of four time periods in which the trained interviewer asked questions of moderately high intimacy from Taylor and Altman's (1966) list. The first and last periods were treatment-free where the interviewer merely asked the specific questions with no other participation. In Periods 2 and 3, subjects were exposed either to a reflecting condition with a reflecting comment for each of the total 10 questions or to a disclosing condition comprised of eight relevant self-disclosures and two reflecting statements. The content of the taped transcripts was rated by two judges according to Doster and Strickland's (1971) intimacy scale. Also, a second intimacy score consisted of the sum of the frequency of self-referrent words within two minutes of responding to each question. Interviewer style was not found to affect subjects' depth of self-disclosure differentially, however, the analysis of variance revealed that time periods did exert a significant effect at $p < .01$. Specifically, the trend was an increase over the first three periods followed by a drop in the final control period. In regards to self-disclosure, this means that subjects had higher intimacy levels when they also received matched self-disclosures as compared to when they were in the two no-disclosing periods.

Because one is looking here at changes in an individual's behavior, this seems to affirm that self-disclosure is a process variable whose intimacy is influenced by another's self-revelations. Unfortunately, this study does not answer why both a reflecting and disclosing style would not create any overt differences. Yet, one may wonder why this author confounded the disclosing condition with two reflecting statements.

One interesting finding is reported by Derlega, Wilson, and Chaikin (1976). All female dyads were formed between friends and between strangers. The first communications through written messages were either of high or low intimacy as defined by Taylor and Altman's scalings. According to subjects' written responses to these messages, judges rated their material on a 9-point intimacy scale and a count was also made of the number of words per disclosure. When subjects received revelations from friends, their subsequent intimacy level was independent of whether disclosure input was high or low ($r = .15$). However, with strangers, subjects did reciprocate directly the intimacy of the disclosure input ($r = .64$). From their discussion of the results, the authors suggest that there may be a stronger obligation to reciprocate during the same encounter with strangers. With friends, the rewards and costs system has become complex and dues need not be paid in a "now or never" fashion. Again, as with many studies, this design may be questioned on the basis of

the note-passing technique which subtracts greatly from a natural social interaction context. Rigid experimental control in this way may take away from the possible generalizations that would otherwise be possible.

The above four studies have served to assert the existence of reciprocity in self-disclosure intimacy in various situations, within and between individuals, and specifically with strangers.

If one now turns to the separate theoretical explanations, little support can be uncovered explaining the dyadic effect purely as a function of interpersonal attraction. It has previously been indicated that self-disclosers are generally liked more than non-disclosers. However, Derlega, Walmer and Furnam (1973) and Ehrlich and Graeven (1971) contradict this and the other part of the hypothesis that one self-discloses in a more personal fashion to and only to those who one likes more. Both studies favor an interpretation based on the norm of reciprocity.

Ehrlich and Graeven had predicted both a dyadic effect and a positive correlation between degree of liking and intimacy level of disclosures. A trained confederate revealed either low or high level personal information to a naive male partner. The task comprised a total of 16 minutes disclosure time where each dyadic member took turns. Unit analysis included two measures of breadth and the rating of judges on the intimacy level of unit statements. An analysis

of variance indicated that depth was reciprocated at $p < .01$ but self-disclosure as defined by all measures was not found to be related to interpersonal attraction. In terms of their method of analysis, one might argue that breadth and depth of self-disclosure are confounded within one measure. To explain, judges assigned each of the subjects' statements as intimate or nonintimate according to specific scale values and then summed them to obtain a score of depth, and thus, what this amounts to is the number of intimate statements by each subject. It would seem more accurate to find definite intimacy levels of self-disclosure of a certain duration and then to find the average depth for that subject's revelations.

Derlega, Walmer, and Furnam's results are also contrary to social attraction viewpoints. Similar to Derlega, Harris, and Chaikin, these authors had a confederate dressed in either a socially appropriate or in a deviant fashion. The confederate would either self-disclose with low or high intimacy. From 7-point ratings by judges, subjects paired with a confederate revealing personal data exhibited greater intimacy, consistent with the dyadic effect ($F = 16.25, p < .001$). Furthermore, these subjects reported a greater willingness to talk about more topics and at deeper levels in the future with their partners. A hypothesis predicting a main effect due to liking was disconfirmed. The reason why the confederate was not liked less when she was deviantly as opposed to

appropriately dressed might be in terms of the greater flexibility today in accepting various modes of dress.

Stronger manipulations seem necessary in order to define one as deviant or not to make sure that the deviant one would be significantly liked less. At this point, comparing self-disclosure would become an easier task. Nevertheless, this study does indicate that to self-disclose more to another is not necessarily to like him more.

Both of these studies disprove social attraction theory and favor an explanation based on the norm of reciprocity. However, both experimental designs are such that modeling has not been eliminated as a possibility. Some research has attacked itself to this problem.

The treatment conditions set up by Derlega, Chaikin, and Herndon (1975) for their sample of 60 female subjects comprised a low or high self-disclosing confederate and a low or high demand situation. In the low demand, the confederate "spontaneously" revealed while waiting for the experimenter but in the high demand, this self-disclosure occurred within the context of an experiment termed "impression formation". The female subjects were expected to divulge personal information as a function of intimacy input only in the situation emphasizing demand characteristics of self-disclosure. Nine-point intimacy ratings by two blind judges established significant effects due to degree of intimacy by the confederate ($F = 15.57, p < .001$). Demand

cues influenced the overall amount of self-disclosure; however, intimacy increased regardless of the demand condition as shown by the absence of interaction effects. This negates a modeling standpoint completely unless one would propose that demand characteristics unrelated to the laboratory context might exist. But, to stretch this hypothesis would become equivocal to saying that the other's behavior, as the only clue, would be conformed to no matter what. Since people are aware of others who act inappropriately, it would seem to follow that one must initially decide by some other criteria whether it is appropriate to self-disclose or not. As in the last-presented study, although situational cues might suggest how people ~~may~~ act, a stronger effect by some other factor seems to be at work here. The results give validity to the generalization of the dyadic effect to much more than laboratory settings.

To support these findings, Morgan and Evans (1977) manipulated an experimenter's self-disclosure to precede or to follow the self-disclosure of 30 male volunteers. These groups were respectively named a modeling and a noncontingent reinforcement group. Using Haymes' technique of analysis with two raters, equal levels of intimacy resulted from both treatments, with $p < .05$. This again gives preference to a norm of reciprocity approach. In order to be able to compare results more easily, Haymes' method should be applied in conjunction with more widely

accepted measures of intimacy, and the indices could then be correlated. The ideal is, of course, to always employ several instruments. The three studies discussed below compare all of the theoretical points of view and lend some support for the adoption of an equitable exchange framework.

To begin with, Davis and Sloan (1974) chose high intimacy topics to be used in four groups where the interviewer either: (a) did not disclose; (b) disclosed for all topics; (c) disclosed in the first five but not in the last five topics; or (d) did not disclose in the first five but did in the following five topics. Judges determined three scores for each of 32 subjects on 5-point scales measuring: (a) depth; (b) emotional investment or intensity of affect; and (c) imitation or similarity of content between paired interactants. These scores were subjected to analyses of variance at an alpha level of .05. If disinhibition had occurred, interviewees, once disinhibited should maintain a high level of disclosure even in the absence of continued disclosure on the part of the interviewer. This was not the case. A social attraction explanation assumes that naive subjects are positively attracted to their self-disclosing partners. From results obtained from their Interview Reaction Checklist, no clear preference was demonstrated for the disclosing interviewer by the interviewees. Also, according to a modeling hypothesis prediction, one would expect a high degree of imitation, that is, high

similarity of content between members of a pair. Yet, deep disclosures contained more originality of content than shallow disclosures. The findings favored the existence of a norm of reciprocity since interviewee's revealingness was strongly facilitated by the interviewer's self-disclosure. In other words, interviewees remained highly intimate only if the interviewer continued to disclose. This reward-cost interpretation is strengthened by the fact that, for a given interviewer disclosing level, the more self-disclosing subjects checked off less favorable reactions in a post-interview questionnaire, thus suggesting that the dispensation of self-disclosure to maintain equity was costly. In order to further test the stability of these findings, one might enhance the experimental procedure by having the interviewer return to his initial disclosing manner in a third phase. Also, depth of disclosure here and in the study discussed below was defined as amount of intimate information disclosed on a topic which raises the same question that was noted for Ehrlich and Graeven's study. However, the authors do not expound on how exactly this measure was taken so that this criticism might not be valid.

With a novel procedure and a total of 36 subjects, Davis and Skinner (1974) had one interviewer disclose openly on an audiotape and another in a live situation with a naive subject. The content was essentially the same for both male models. Controls received no disclosures before their own self-

disclosures. Disclosure on ten high intimacy rated topics was scaled by judges as to depth and emotional investment. The final treatment by topic order by sex by topic analysis revealed greater intimacy in subjects paired with a live model as compared to both the audiotape and control groups. The last two were marginally different, with the latter showing lower scores. Modeling would have predicted equal disclosure intimacies in the two groups exposed to a model and is thus refuted. Arguments might be raised in terms of the comparative potency of the models due to their ways of transmitting their self-disclosures, as in their affective tone. In addition to the above, no preference was reported for the high-disclosing model seen live according to the Marlowe-Crowne Social Desirability Scale. This contradicts the liking standpoint. This design might have been improved, however, by having the same model self-disclose in the two treatment conditions.

With their sample of 48 males, Jones and Archer (1976) have contributed some evidence for an equitable exchange approach. Ironically enough, they found significance using length and breadth of self-disclosure, yet no main effects were found for either liking, modeling, or social exchange with a measure of depth, our prime focus so far. Perhaps by looking at the design, this failure to show reciprocity in intimacy could be better understood. All subjects first read a questionnaire supposedly filled out by their confederate

partner and including some intimate details. Then, they were divided so that half witnessed a videotape where the confederate disclosed intimately, and half saw a videotape with only low intimacy disclosures. Following, the subjects were paired with the same confederate who either revealed personal disclosures or only spoke about himself superficially. The content of intimate disclosure was the same in the questionnaire, videotape and actual interview sessions. Then subjects were asked to describe themselves on five topics. Contrary to modeling propositions, in the groups paired with an intimate confederate, those subjects not exposed to a videotape of a personally-disclosing confederate talked on more topics and at greater length than those having had this exposure. Also, for measures of amount and length of disclosure, subjects were more self-disclosing when they had heard some intimate disclosure than without either a videotape or actual examples of the confederate's intimacy. Ratings of liking and trust were not related to any of the disclosure measures. The scalings of depth of disclosure produced no significant effects. Since all subjects had knowledge of the intimate information concerned with the confederate through the questionnaire, it might be reasoned that this was sufficient for all to reciprocate to some extent. They would then be "paying for" the openness they had received in some or several forms by the confederate. The study would be improved by including conditions where

subjects were given only a low intimacy questionnaire completed by the confederate in some groups.

Concluding remarks. On the whole, the set of studies presented above give substantial credibility to an equitable exchange theory. Social attraction does not seem to be tenable in explaining a reciprocity effect or perhaps one should qualify by stating that this appears to be the case in the early stages of a relationship. From Derlega, Wilson and Chaikin's study, friends do not seem to follow a reciprocity norm as strictly as strangers. Few studies have dealt with trust as distinct from liking; such investigations might uncover a relationship between trust and self-disclosure and thus need to be undertaken. Modeling proves to have some influence at times but not as consistently. Several experiments by Rubin (1975, 1976) also serve to demonstrate that the dyadic effect can be generalized to natural settings and is, therefore, not merely an outgrowth of the ambiguous laboratory situation. The strongest explanation lies in the striving to maintain a balance in the intimacy level of relationships of incurred costs and rewards by conforming to what Gouldner has named a norm of reciprocity. Probably the best suggestion would be to investigate the possibility of formulating a theory combining the various influences in which equitable exchange plays the star role and modeling, especially in unstructured situations like the laboratory, has some weight; and finally, social attraction could be

involved in later stages of a relationship or when trust, not liking, is considered. Notwithstanding the theoretical framework adhered to, the volume of research offers substantial proof to the reciprocity of intimacy level in self-disclosure. The multifaceted designs, measures, and settings brought forth here suggest the generalizability of the concept and its importance as a motivating force in the formation and development of human relationships. The first hypothesis of the present study is of this re-occurrence of the dyadic effect with two levels of intimacy, with a French-Canadian female sample, and using two separate measures of intimacy: pre-rated intimacy values from Taylor and Altman's items and average number of self-references per minute. By employing these two measures, one is circumventing one of the major criticisms raised about many of the studies reviewed. Another main critique has been in terms of the non-naturalness of the interactions called for in numerous experimental designs. To counter this problem leading to ~~limited~~ generalizability, the procedure here is a face-to-face encounter with authentic self-disclosures from the confederates. This will be clarified later in the next chapter.

Present Versus Past Time Orientation

At this point, an argument will be developed which asserts that the intimacy level of a self-disclosure can be affected significantly by altering the time orientation of

the content. First, one will turn to what is known of intimacy. Traditionally, as in the research discussed in the previous pages, intimacy level of content has been dealt with according to the nature of the topics of self-disclosure, as in Taylor and Altman's list, and in terms of some index of how deeply these topics are spoken on. Typical measures in the latter case include subjective scale ratings by independent judges (5-, 7-, 9- and 11-point scales have been used) and more objective methods such as frequency counts of self-references. It is hard to determine what judges listen to in deciding to what degree a self-disclosing statement is "personal" or "openly revealing" or "very intimate" as opposed to "superficial" or "unrevealing" or "not at all intimate". Derlega and Chaikin (1975) have attributed the generally high interjudge agreements in such ill-defined scales to two factors which are thought to affect intimacy ratings. These are: (a) information that is unique to the individual, and (b) revelations of feelings or behaviors that are not divulged publicly or to many people. These authors add that the more vulnerable the information about ourselves makes us, the less likely we are to reveal it. With this in mind, if one considers information about the self in the present time mode as opposed to personal data which focusses only on the past, one might suppose that, generally, it is the more actual revelations which might render us more vulnerable. In other words, all other things

being equal, if we orient ourselves to present happenings in our life, we might be more intimate than if we restrict our self-disclosures to events of a time gone by. Of special importance in such an assertion is that one is assuming self-disclosure with similar types of topics and with a fixed degree of self-exploration for a given topic. Notions of Gestalt psychotherapy and a client-centred process outlook will help verify these deductions.

Theory

The major references in focussing on Gestaltist views are the following: Egan (1970); Fagan and Shepherd (1970); Passons (1975); and Perls, Hefferline and Goodman (1965). These authors stress that the meaning of living in the present is different from being past-oriented in terms of the individual himself. After exposing these postulates, an investigation is made of how this, in turn, can affect one's interpersonal contacts, and thus, how others might respond to a person who self-discloses on actual versus past events and feelings.

A specific and greatly emphasized injunction of Gestalt therapy is: "live now: be concerned with the present rather than with past or future" (Naranjo, 1970, p.49). Living-in-the-moment becomes the appropriate prescription for life and goes hand in hand with valuation of consciousness itself. Having the present as a reference point means commitment to living or having an experiential framework. As

a consequence, achieving the status of a healthy person is synonymous to living in the now. In order to develop the feeling of actuality, a stress is placed on words such as "now" and "at this moment". The definition of the "present" treatment condition in this study comprised the use of such terminology by the confederates as well as only present-tense verbs. On the other side of the coin, what does it mean to be concerned with the past? A central focus in the past is associated with avoidance of living and of being responsible in the present. Talking about the past is regarded as a defensive attitude or maneuver to maintain distance from potentially threatening current concerns. Unlike the Freudian perspective which encourages looking back into one's past, the Gestalt outlook maintains that such a time orientation subtracts from the possible time and energy necessary to change one's present condition. This is not to say that any reference to one's past is negative in the latter viewpoint since presentification or reliving of the past can be beneficial. Rather, the point here is that: "talking about the past in the past tense usually results in leaving the past in the past" (Passons, 1975, p. 161). As such, the persons trained here to be "past" self-disclosers only spoke in the past tense and utilized expressions definitely situating themselves in a clearly past period of their lives. To summarize then, good adjustment follows through from present centredness whereas references to the

past imply avoidance and limit the possibility for personality growth.

Not only does a past or present focus have consequences for an individual's psychological health but it also affects a person's contact with his environment. Actuality of the present results in clearer contact with the real environment. Part of an individual's being aware of himself in the now intrinsically involves his consciousness of with whom and how he is relating. A division is created when one tries to focus on the past and at the same time really be with someone in the present. In terms of the psychotherapeutic relationship, deviations from the present may be real indications of a client's distrust for the whole approach to therapy and/or for his therapist. With others, as in a group encounter, a preoccupation with a time gone by is not necessarily because of the meaningfulness of these events but is often an escape into safer grounds (Egan, 1970). To restate some ideas behind these statements, talking about the past may frequently be paired with lower trust and fear of risk-taking, concepts which have already been linked to lower levels of self-disclosure. Thus, if the past is consistently one's reference point, one might expect self-disclosures with this time perspective to affect another's intimacy level in the same direction as lesser depths of self-disclosure. In other words, both self-disclosing in the past and self-disclosing with low intimacy stem from

choosing to be more distant and should conceivably be responded to with low intimacy in self-disclosure from the recipient of such revelations. As Egan says in regards to others' reactions to a past-oriented interactant: "the problem with the past is that it (coupled with....the quality of a person's self-disclosure) engenders ennui" (p.94). Therefore, from Gestalt interpretations, there seems to be justification for the prediction of the second hypothesis: that past-self-disclosures by Person A is more distant than present-focussed revelations and should be correlated with lower self-disclosure intimacy in Person B's responses.

The present-past time dimension is also stressed by Rogers (1961). According to client-centred therapy, the process of constructive personality change involves a sequence of changes within a person. Of particular interest here are the alterations in a client's relationship to feelings, his communication of self and his interpersonal relationships. In the initial stages when the client is in a state of incongruence, Rogers states that he expresses feelings as remote from himself, usually existing in the past; that he is unwilling to communicate anything but external, non-self material; and that he fears and refrains from close personal contacts. Applying this to our perspective then, poor personal adaptation seems to cement together a past focus in feelings, low levels or amounts of self-disclosure and

avoidance of intimacy with others. One has, in fact, the three main elements of the present study which are assumed to be significantly correlated with each other. The same applies in the advanced stages of successful therapy when a client becomes congruent with himself. Simultaneously, he has learned to experience his feelings in the present, to achieve satisfaction in communicating himself and to risk more and more in his personal contacts by living openly with an integrated flow of feelings. The link between present-centredness, greater self-disclosure and closer and deeper interpersonal relationships seems unquestionable, all variables going hand in hand with positive personal growth. Thus, rogerian theory also gives solid ground for the hypothesis formulated in this research paper. Some indirect evidence from experimental findings will now be looked at.

Research

Theoretically, the link between self-disclosure intimacy and time orientation is sound. Experimentation investigating the relation between these two variables is unfortunately lacking completely. However, some studies have focussed on the effect of various time contexts on a person's attitude. These will be reviewed in the following section. They provide evidence for the belief that different reactions and responses would follow from different time perspectives, giving concrete indications of the trend these responses could take.

Time immediacy and positive attitudes or adjustment

Wiener and Mehrabian (1968) and Mehrabian (1972) believe strongly that a person communicates his attitudinal or affective positiveness or negativeness towards another by altering the degree of immediacy in his verbal behavior. For these authors, immediacy refers to the "degree of directness and intensity of interaction between communicator and referent in a communicator's linguistic message" (Mehrabian, 1966, p.28). Using this concept, they have devised an Immediacy Scale based on 9 or 12 categories scored according to an empirically based scoring procedure. One of these categories is time immediacy which is specifically concerned with "the relationship between the communicator and the object of communication (as) ongoing or present instead of being temporally past or future" (Mehrabian, 1967, p.415). An example of a temporally immediate statement would be: "Mike is showing me his house" whereas nonimmediacy would be communicated in: "Mike showed me his house". As such, this draws a parallel to the definitions of past and present oriented contents given in the present study since it bases itself on variations in tense usage. The main postulate of these authors is that non-immediacy in language signals a speaker's separation of himself from the object of his message, from his addressee or from the message itself and is thus indicative of avoidance behavior.

To test the validity of this assertion, the responses of

untrained subjects to variations in immediacy were investigated in two studies by Mehrabian (1967, 1968). In the first of these, 92 undergraduates were asked to choose the item from pairs of statements which displayed the more positive preferential and/or affective attitude on the speaker's part towards the entity referred to. The 35 pairs of statements each had an immediate and nonimmediate version of the same context. The significant z score of the means confirmed the hypothesis that subjects judge more temporally immediate communications as demonstrative of more positive attitudes on a speaker's part than nonimmediate sentences.

Experimental evidence to support this finding is brought forth by Mehrabian (1968). In a similar design, 46 students rated items in a 96 page booklet on a 7-point dislike-like continuum in terms of the attitude inferred of the speaker toward some thing or person. An analysis of variance revealed that temporal nonimmediacy in response to an immediate context was scored significantly more often as indicative of a negative attitude than either immediate time statements in an immediate context or nonimmediate statements in a nonimmediate context ($p < .01$). As such, when there was reciprocity in degree of immediacy between question asked of the communicator and response by the communicator, the perception of the speaker's feelings was less negative. The conclusion of both studies suggests that a present-immediacy focus is interpreted by naive subjects as denotative of more

positive attitudes from a discloser than a past or future, that is, a nonimmediate temporal reference point.

Mehrabian and Wiener (1966) also demonstrated the corollary of this standpoint; more specifically, that one manifests greater temporal immediacy as a consequence of pleasant attitudes felt about a situation or person in contrast to an entity having more negative connotations for you. The answers given by 24 subjects on two literary passages were arbitrarily rated "high" or "low" by an experimenter. Subjects then wrote a sentence about each passage and this was rated by two judges using the Immediacy Scale. According to a one-tailed t test analysis, the nonimmediacy score for a failure-associated event is significantly greater than the nonimmediacy score for a success-associated event ($p < .05$). Similarly, 35 nursing students wrote statements describing a liked and disliked acquaintance. Judges' evaluations underlined a significant effect linking greater temporal nonimmediacy with revelations about disliked people than about liked people ($p < .001$). This last procedure was replicated with 70 subjects and parallel results were extracted with an overall interjudge agreement of .62.

In reference to the studies mentioned on immediacy, the validity of the Immediacy Scale needs to be ascertained. Defining the criteria more extensively should improve the correlation between the judges' ratings. In addition, to relate these findings more closely to the present study, a

more concentrated look at temporal immediacy alone becomes necessary. The research by Weiner and Mehrabian support the idea that different time orientations in self-disclosure content will be interpreted differently by naive subjects. More concretely stated, past-related statements are perceived as showing more negative attitudes than a present focus in self-revelations. As the present study stipulates, this leads to less intimacy in response to the less temporally immediate disclosures.

A study by Getsinger (1976) goes one step further. Not only are nonimmediate time disclosers perceived as manifesting negative attitudes, consistently past-oriented communicators may even belong to a more pathological group. Like the Gestalt therapists who maintain that living in the "here and now" promotes positive mental health, Maslow (1971) has described one criteria of the psychologically healthy or self-actualized person as having a present-oriented focus in life. To dwell in the past or to aspire continuously for better days prevents the attainment of self-actualization. Getsinger chose 15 men diagnosed as sociopaths upon hospitalization and 15 men labelled "psychologically healthy" or "self-actualized" following the completion of a battery of psychological tests and a 30-minute clinical interview. One temporal measure employed in this study was a time reference inventory containing 10 positive, 10 neutral, and 10 negative open-ended questions with reference to a past,

present or future time mode, as devised by Ross and Albers (1965). At $p < .001$, a t -test demonstrated that sociopaths assigned positive statements more often to the past than the self-actualizers. Also, the latter more frequently associated negative statements with the past and less frequently with the present than the pathological group. The author concludes that the past is a more dominant time mode and a more positive one for sociopaths who seem to yearn for the "good old days" unlike more psychologically adjusted individuals. Thus, given our experimental assumptions and the findings by Getsinger, Wiener and Mehrabian, it seems plausible that a past-oriented discloser would be perceived more negatively in general than a present-centred speaker. To follow through, it appears as tenable that one would want to be less intimate with such a discloser. The communicator revealing present-related or immediate information would be judged as better adjusted and thus induce greater trustworthiness to share intimate or personal material with him.

Time Immediacy and Perception of Threat

Coming from a different line, a research paper by von Wright and Kinnaunen (1976) lends support to our contention that closer temporal events are viewed as more threatening than more temporally distant happenings or situations. Forty-five females and 42 males were asked to estimate the degree to which they experienced one of three harmful events as threatening if it occurred in one of five years: 1977, 1982,

1993, 2012, and 2034. The scale used ranged from "0" or "wholly indifferent" to "100" or "extremely threatening". The plottings of the mean ratings of threat against chronological time indicated less threat felt with increased time. A definite criticism is that this study does not clearly state that this tendency achieves a significant value according to some probability level. Also, no counterpart study exists that investigates this relationship specifically with a past and present focus instead of future and present. The assumption here is of the generalizability of the conclusion in that the level of fear decreases with greater chronological distance, whether one is going forward or backward in time.

To restate the importance of such an assertion within our present context and a social exchange framework, self-disclosing about the present means expressing something that is more threatening and therefore more costly due to the risk-taking involved. These self-disclosures are thus indications of greater trust for the recipient of the information and, as such, are more rewarding. In accordance with the norm of reciprocity, one would then respond by paying for such self-revelations with equally costly information in the form of greater intimacy in self-disclosure.

Conclusion and Hypotheses

What is stipulated generally is that self-disclosure intimacy is in itself a complex variable which is affected.

by: (a) choice of topic, as has been evidenced by rating Taylor and Altman's items consistently at different intimacy levels, (b) content itself in terms of a subjective evaluation of uniqueness and privacy of the information or some behavioral index such as the degree to which an individual employs self-references, and (c) time orientation of the disclosures where present-centredness is perceived as more intimate than a past perspective, as defined operationally by verb tense and expressions of time allocation.

Before proceeding to the description of the experimental procedure, some reasons for attempting this research are set forth. Globally, one has already noted the importance and relevance of self-disclosure intimacy to the formation and development of interpersonal relationships and possibly even to positive mental health. For example, in digging to the roots of problematic relationships (nagging wife and silent, passive husband), one might discover an unbalanced framework of self-disclosures in the very first encounter. This makes it a crucial target for research. In this connection, the literature has usually focussed on reciprocity in self-disclosure intimacy, providing evidence for a norm of reciprocity. In trying to replicate these findings using a different population culture-wise and with an experimental design aimed at creating a more natural social encounter, one is, in fact, testing the universality and range of applicability of this reciprocity process.

Secondly, focussing on present versus past self-revelations might contribute concrete support for the "live now" assertion in Gestalt psychotherapy in the realm of social contacts. Although Bundza and Simonson (1973) had stressed the need to look into "here and now" experiences within self-disclosure, no such direct research has as yet been published. Also, investigations in time orientation of self-disclosures bring us one step closer to defining the multidimensionality of the concept of intimacy in non-subjective terms. Being intimate or personal is so critical to so many settings, for example psychotherapy, that it surely warrants experimental research in this domain. This paper, therefore, hopes to answer some of these questions and, as so often happens, stir up some new questions.

Following through then, we may more precisely state the two main hypothesis of the present study. As previously mentioned, intimacy in topic choice relates to Taylor and Altman's (1966) pre-rated intimacy levels and intimacy of content refers to the frequency of self-references per minute, according to operational definitions that will be discussed in the next chapter.

Hypothesis 1

When a naive subject engages in self-disclosure with a confederate during a dyadic encounter, greater intimacy in the subject's topic choice and content of disclosure will be associated with greater intimacy in the confederate's topic

choice and content.

Hypothesis 2

When a naive subject engages in self-disclosure with a confederate during a dyadic encounter, greater intimacy in the subject's topic choice and content of disclosure will be associated with a present as opposed to a past time orientation in the confederate's self-disclosure.

In the next chapter, the research procedure used to test out these hypotheses will be described in detail.

CHAPTER II

EXPERIMENTAL DESIGN

The basic procedure employed to test out the hypotheses is one of matching a naive subject with a confederate for the purpose of a self-disclosing encounter. After describing the subjects involved, the dependent measures used to assess intimacy in self-disclosure will be discussed. Then, the inclusion of a baseline level trial is shown to provide a randomness check. At this point, the step-by-step procedure concerned with the training stage and the experiment proper is detailed.

Subjects

Confederates

Eight females were selected to undergo a pre-experimental training session and later to be matched with a naive subject. Two confederates were given instructions on how to self-disclose for each of the four treatment conditions discussed later. Only females were chosen because, as shown in the literature review, sex of the recipient of self-disclosure can affect how and what the self-discloser reveals. These confederates were French-Canadian students between the ages of 23 and 31 with at least three university years in a psychology programme.

Practice and Experimental Subjects

The subjects were 64 French-speaking female students from the University of Ottawa. The experimenter went to several university courses given during the summer session,

1978, in order to obtain volunteers to participate in this study. Eight of these, ranging in age from 19 to 38, were paired with the eight confederates for a preliminary dyadic interview that served as a practice session for the confederates. The remaining 56 subjects took part in the experiment proper. These were 40 unmarried and 16 married naïve subjects, ranging in ages from 17 to 36 with a mean age of 25.14 years and a median age of 24.00 years. As indicated previously in the first chapter, males and females self-disclose differently and same-sexed dyads will be significantly different in their communication about self than mixed dyads (e.g. Lombardo et al., 1976; Lord & Velicer, 1975). Thus, in order to eliminate variation contributed by this factor, sex was controlled for by selecting only females as subjects for this study.

Both practice and experimental subjects were given the same instructions and underwent the same treatment; however, only the data from the latter subjects were analyzed in the results. For simplicity, the terms "subjects" or "naive subjects" in this paper will refer to the 56 experimental subjects alone. The specific expression "practice subjects" will be reserved for those volunteers who partook exclusively in the initial practice session.

Procedure

Dependent Measures

Pre-rated Intimacy Levels of Items from Taylor and

Altman, 1966. In Taylor and Altman's study, 671 statements about various aspects of the self were rated for intimacy by two different samples. These two sets of judges were 150 sailors entering the Bainbridge Naval Training Center and 77 male freshman students at the University of Delaware. They assessed intimacy levels of the stimuli on a scale of equal-appearing units, ranging from 1.0 or extremely low intimacy to 11.0 or extremely high intimacy. The experimenters computed Thurstone scale values (median judgments on the 11-point scale) and Q-values (inter-quartile ranges). In addition, some of the subjects were asked to sort the items into one of the following 13 categories: (a) religion (n = 38); (b) own marriage and family (n = 56); (c) love, dating, sex (n = 71); (d) parental family (n = 57); (e) physical condition and appearance (n = 44); (f) money and property (n = 37); (g) government and politics, current events and social issues (n = 53); (h) emotions and feelings (n = 52); (i) interests, hobbies and habits (n = 65); (j) relationships with other people (n = 46); (k) personal attitudes, values and ethics, and self-evaluation (n = 52); (l) school and work (n = 72); (m) biographical characteristics (n = 18). Results indicated high inter-sample agreement for intimacy with Pearson product-moment correlations from .76 to .94 for the 13 categories individually and a pooled index of .90. College students generally had lower Q-scores, thus exhibiting greater internal consistency or agreement than navy subjects.

The suggested use of these intimacy-scaled stimuli for self-disclosure inventories is supported by these authors who obtained significant split-half and alternate-form reliabilities of .82 to .86 for 35- and 70-item instruments. As will be shown in the following section, many researchers agree with these assertions and provide additional support to encourage the use of Taylor and Altman's items in studies of interpersonal relationships.

The Taylor and Altman list has been used extensively in studies to develop self-disclosure questionnaires or as topics of self-disclosing communications. Varying in number of items chosen from the total pool of items, some of these are: Cozby (1972); Daher and Banikiotes (1976); Feigenbaum (1977); Fantasia and Lombardo (1975); Jones and Archer (1976); Jourard and Resnick (1970); and Schneider and Eustes (1972). Although different populations were focussed upon, researchers often felt that the original pre-rated intimacy levels were appropriate for their samples. For example, Savicki (1972) used these ratings although his subjects were 60 female undergraduates from the University of Massachusetts. Davis (1976) also assumed that Taylor and Altman's published scale values would be equivalent to intimacy levels perceived by British undergraduates of both sexes. These latter authors thus felt that the pre-rated intimacy scaled values may be used as a dependent measure for females as well as males and even across cultures.

Confirmation of high interrater reliabilities for the intimacy levels of the Taylor and Altman items is found in Becker and Munz's (1975) study. Using the same 11-point scale, the correlations found varied from .88 to .96.

Support for the consensual validity of the Taylor and Altman list is provided by Strassberg and Anchor (1975). The original 11-point intimacy scale values were first of all rescaled on a 3-point system of low, medium or high intimacy using the college sample scores. This new Intimacy Rating Scale was employed to rate 21 varied personal statements. Then, these statements were scaled as non-intimate, moderately intimate or highly intimate by 62 college students with 11 males and 51 females. An r of .96 was found in terms of the mean intimacy score for each of these 21 statements as correlated with the authors' ratings with the Intimacy Rating Scale. Thus this indicates a significantly high correspondence between the original ratings and this new sample's ratings.

There is little literature that attempts to correlate the Taylor and Altman intimacy values with measures of actual disclosure in an interview situation. Bundza and Simonson (1973) selected items from Taylor and Altman's list and asked subjects to indicate for each of these their willingness to self-disclose with various types of therapists. An interview followed with a therapist asking each subject some open-ended questions. A systematic analysis of subjects'

recorded statements in the interviews constituted a measure of the degree of subjects' actual disclosures. The authors report that this index is highly correlated with responses on the initial questionnaire. Unfortunately, no precise quantifying correlation is given.

Vondracek and Marshall (1971) have calculated an estimate of the correlation between a 144-item Self-disclosure Questionnaire (from Taylor and Altman's list) and actual disclosure, as measured by amount of self-disclosure. In their study, the authors asked 80 subjects (40 males and 40 females) to rate on a 3-point scale the degree to which they had disclosed each topic to their best friend. A significant correlation of .25 ($p < .05$) was found between the questionnaire pre-ratings and their interview measure of amount of self-disclosure. It could be that a higher coefficient would have been obtained had the target person called for been a stranger instead of the subject's best friend. Disclosure to a stranger might resemble more that subject's behavior in a new interview situation when he is paired with an experimenter.

On the whole, the use of the Taylor and Altman list seems widespread in self-disclosure research. Also, high reliability coefficients on inter-judge ratings of intimacy levels have been found for various samples. There is evidence, though scant, that these pre-ratings are correlated with other measures of self-disclosure in an actual

situation. One of the main advantages of using the Taylor and Altman material in a study of social interaction is that it strikes a balance between prestructured and unstructured measures. Thus, while permitting relatively free interaction and thus some understanding of dynamics, such material still provides research control and allows for rigorous measurement and facility in data collection and analysis. Given the above, the use of pre-ratings as a measure of intimacy in self-disclosure was felt to be justifiable. The method of selection to pick out the sample pool of items necessary for the present study is described in the next section. Only the intimacy ratings from the male college sample were used as these seem more generalizable to a population of female university students, as has been the contention of other authors mentioned previously.

Fifty-one items (6 for the confederates and 45 for the subjects' topic list) were selected from Taylor and Altman's 1966 list of 671 intimacy-scaled stimuli. These items belonged to five of the initial 13 topical categories. The five topical categories were the only ones to fulfill the following criteria: (a) $r > .80$, where r refers to the Pearson product moment correlations between scale values of intimacy levels (ranging from 1.0 to 11.0) for individual statements in each category, with inter-sample ratings of intimacy; topics chosen yielded r 's between .82 and .92;

(b) categories whose frequency distributions (histograms) were either normally distributed or somewhat positively skewed, that is, these topics contained items stretching through a wide range of intimacy levels with the greatest cluster of items in the middle or moderately high scale value of intimacy, as opposed to nonselected categories whose mean intimacy level was in the low intimacy range, representing items of a more superficial nature; and

(c) categories appropriate to the entire sample; only one topic category was eliminated in terms of this criterion, that of "own marriage and family" which could not apply to the unmarried portion of the subjects. Therefore, in regards to the above stipulations, the following five content areas could be and were included in this study:

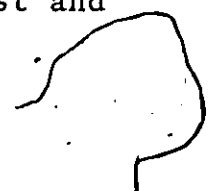
(a) love, dating, sex; (b) parental family; (c) emotions, feelings; (d) general relationships to other people; (e) personal attitudes, values, ethics and self-evaluation. Those categories that did not fulfill the criteria and were consequently omitted from the total pool of items were:

religion; own marriage and family; physical condition and appearance; money; politics and government, current events and social issues; interests, hobbies, habits; school and work; and biographical.

For the present study, 51 items were randomly selected from the five categories just mentioned. As a first step, all items belonging to these five content areas ($N = 278$) were

divided, according to their order of appearance in Taylor and Altman's listing, into one of nine levels of intimacy. The ranges defining these levels were: (a) 1st level: from 1.00 to 2.99 inclusive, $n = 6$; (b) 2nd level: from 3.00 to 3.99, $n = 16$; (c) 3rd level: from 4.00 to 4.99, $n = 28$; (d) 4th level: from 5.00 to 5.99, $n = 32$; (e) 5th level: from 6.00 to 6.99, $n = 47$; (f) 6th level: from 7.00 to 7.99, $n = 42$; (g) 7th level: from 8.00 to 8.99, $n = 40$; (h) 8th level: from 9.00 to 9.99, $n = 14$; and (i) 9th level: from 10.00 to 11.00, $n = 9$. As this shows, for eight levels, a 1.0 point difference existed between the range limits from one level to the next. Only the first level provided an exception to the rule in that the range span was doubled; the reason here being due to the low number of items classified under these intimacy ratings. Thus, at this point, all items had been placed into one of nine columns where columns represented intimacy level as rated by Taylor and Altman's sample.

Next, an APL random number generator computer program was used to select 5 items from each of the nine ranges of intimacy levels. This gave a pool of 45 items. These were ordered such that every sequential block of nine items, for example, from numbers 1 to 9, or 10 to 18, and so on, contained a representative item from each level. Randomness had been ensured in terms of initial item selection, ordering of the five items as to numerical appearance on the list and



ordering of the nine items for each of the five blocks of items. Following this arrangement, the items were translated into French since the sample used was French-speaking. Two collaborators checked the translation separately. Furthermore, in a few instances, slight rewordings became necessary in order to conform to an all-female sample since Taylor and Altman had a solely male population. For example, number 20 of the 45-item list initially read: "the first time I kissed a girl"; this was converted so as to become: "the first time I kissed a boy". The final draft of the topic list thus comprised 45 numbered items, typed on 8½" by 14" white paper, with an additional spacing left between blocks of nine items so as to facilitate reading. It is included as Appendix E.

As a last step, six other items were picked out from the remaining pool of items. These were the topics of self-disclosure given to the confederates. Three were chosen from the second level and thus represented a relatively low degree of intimacy. In chronological order of discussion, these topics with their respective scale values (SV) were:

- (a) "topics of conversation that bore me", SV = 3.27;
- (b) "events in weather that frighten me (windstorms, thunder, hurricanes, etc.)", SV = 3.75; and (c) "how I feel about going to parties and other affairs where there is lots of loud fun",

SV = 3.67. These became part of the treatment condition labelled LOW. Three topic items were also sampled from the remaining pool of items in the seventh level. Again, listed

in terms of when the confederates disclosed on them, these were: (a) "what I am most afraid of", $SV = 8.25$; (b) "whether or not I feel that I am attractive to the opposite sex", $SV = 8.73$; and (c) "weaknesses that I feel I have in my personality", $SV = 8.42$. These topics were given to the confederates assigned to the HIGH condition.

The identification of these specific ranges to define LOW and HIGH intimacy was based on the following reasons. In relation to the low intimacy items, a lack of items from the first level made selection from this grouping impossible, that is, after five items had been picked, only one item remained in this level. Secondly, in order to ascertain oneself that real differences existed between items classed as high and low, a sizeable gap was desired to separate the ranges of the pre-rated intimacy scale values. A third basis for these assignments is related to the high intimacy level. Although, logically, since the next to lowest level had been chosen for the LOW condition, the next to highest level would seem to be the appropriate choice for the HIGH condition. Items were instead selected from one level lower, that is, the seventh, not the eighth, level. The explanation for this is that previous studies have shown that self-disclosure of extremely high intimacy in a first encounter is often interpreted by the person receiving the disclosure as signals of maladjustment (Cozby, 1972; Chaikin & Derlega, 1974a, 1974b; Giannandrea & Murphy, 1973; Mann & Murphy, 1975).

One can understand such an interpretation in terms of societal values of the Western civilization. A certain amount of reserve is expected when persons first meet. Talking about oneself on highly intimate matters too quickly is judged, therefore, as inappropriate. Persons receiving such communication often respond by "turning off". Thus, items from the two highest intimacy levels were eliminated and the three topics were picked from a moderately high intimacy category. For the above reasons, LOW and HIGH items were selected as such.

As with the 45 other items, the six statements discussed above were translated into French and this translation verified by the same two checkers. As such, with no further alterations, the three items with low scale values (second level) were ready to be given to the confederates in the low-present condition. The three items with intimacy values from 8.00 to 8.99 were, likewise, assigned in this form to the confederates in the high-present condition. For those confederates in the past conditions, either HIGH or LOW, all verbs in the statements were altered from the present to the past tense. The appropriate group of three items were then ready for use by the confederates in the low-past or high-past condition. In their final versions, these items are stated at the bottom of the instruction sheets for confederates, inserted as Appendix A, B, C, and D. Discussion of the specifications of each

treatment condition will be reserved for the section labelled Stages.

For these reasons and given these modifications, the pre-rated intimacy levels were used as a measure of intimacy in self-disclosure. In relation to the hypotheses previously stipulated in the first chapter, the specific expectations are as follows: naive subjects in the high and present treatment conditions are expected to choose topics pre-scaled at a higher intimacy level than subjects in the low and past conditions, respectively. It has already been noted that it is advisable to include another index to assess a subject's intimacy level in self-disclosing communication. Because of this, a behavioral measure was employed and is discussed in the following section.

Number of Self-references per Minute. The use of self-references as a dependent measure can be traced back to Rogers (1960). In his study, he showed that it is possible to increase significantly the number of self-references employed by a client when a therapist followed such references by "Mm-hmm" or the like. For this research, a self-reference related to a grammatical sentence and was defined as: "a verbal response by a subject which describes him in some way, tells something about him or refers to some affect he experiences" (p. 248). To assess the reliability of codings, ratings by two judges yielded Pearson product moment correlations between .83 and .95. Using the

same framework, Powell (1968) later found comparable high inter-judge reliability between .84 and .94. Other experimenters have employed affective self-references to measure the verbal affect of patients (Merbaum, 1963, 1965; Salzinger & Pisoni, 1960). These investigated the effect of various reinforcers on the conditioning of such self-references. As a baseline measure, the latter researchers looked at total self-references which were all statements beginning with pronouns "I" and "we".

In a study on the effects of instructions and modeling on self-disclosure, Stone and Gotlib (1975) emphasized a connection between self-disclosure and self-references. They used a measure where disclosures containing first person references received the maximal score of two points in computing total self-disclosure. Impersonal second person references, for example "you", were counted only as one point.

Recently, Zarie and Boyd (1977) attempted to evaluate the efficacy of various self-disclosure training procedures on married couples. For this purpose, a self-disclosure statement was "any statement that contained a self-referent pronoun and conveyed information concerning the emotions, ideas, attitudes or experiences of the speaker" (p.120).

Also, McGuire et al. (1975) adopted self-references as a dependent measure in self-disclosure research. Their operational definition of self-reference was the number of

times subjects referred to themselves using personal pronouns I, me and myself. As in the present study, to remove the effects caused by different speech durations, the score was analyzed as number of self-references per minute of speaking time. Their results using this measure were comparable to those found with a second measure, that is, Doster and Strickland's Disclosure Rating Scale. The latter is rated along a 7-point superficial-personal disclosure continuum. Unfortunately, a correlation between both measures was not calculated.

One research that provided concrete justification for the use of self-references in measuring self-disclosure is by Goodstein, Goldstein, d'Orta, and Goodman (1976). Initially, 33 statements randomly selected from an encounter group session were ranked on a scale of 1 to 7 by ten naive raters. This conformed to Block's Q technique and served as an objective, external measure of self-disclosure. Following this, an analysis was made comparing the five most disclosing and the five least disclosing statements. The examination revealed a greater number of self-references (I, me) in the former statements in relation to the latter ones, at a probability level of $< .05$. The authors concluded that self-disclosing statements could be identified simply by selecting out in advance those statements that contained a high number of self-references.

Confirmation of this conclusion is given by Feigenbaum

(1977). He, like McGuire et al., used number of self-references and the Disclosure Rating Scale as measures of intimacy in self-disclosure. In this instance, the interviews had been transcribed and then rated using Doster and Strickland's scale by two blind judges who were pretrained. Interrater agreement for this measure was high ($r = .79$, $p < .01$). Correlations of the two measures were computed as based on 48 subjects' responses to 18 interview questions calling for self-disclosure. The Pearson moment correlation revealed ($r = .70$) is significant at a probability level of $< .001$. This substantiates the use of self-references as a measure of intimacy level in a subject's self-disclosure.

For the present study, in addition to the pre-rated intimacy levels, a behavioral measure of self-disclosure was employed in order to investigate more closely the actual disclosure content following topic selection by the naïve subjects. This involved a frequency count of self-referent words articulated per minute for each topic discussed. Specifically, the self-referent words considered were those employed by Feigenbaum: "I, we, me, us, my, our, myself, ourselves, mine, ours". Translated, one has the following: "je, nous, me, moi, mes, ma, mon, notre, nos, moi-même, nous-mêmes, le nôtre, la nôtre, le mien, la mienne, les miens, les miennes, les nôtres". However, these were not counted when used in an idiosyncratic manner, for example "je ne sais pas", that is, "I don't know". Since the

disclosure time per topic would understandably not be identical for each naive subject, the total number of self-referrent words per topic was divided by the total time in seconds of self-disclosure and then converted to number of self-referrent words used per minute. Total time of self-disclosure was assessed as the time when the naive subject first began to speak to the time when he stopped talking, discounting silent pauses of five seconds or longer.

In terms of the hypotheses proposed earlier, one would expect that subjects in the high and present conditions would utilize more self-references per minute than subjects in the low and past treatment groups. This represents the same trend as that stipulated for the pre-rated intimacy levels of the topics. Both dependent measures are seen as indications of the intimacy level of the subjects' self-disclosure.

Randomness Verification

As described in the stages section, naive subjects were assigned to one of four treatment conditions in a random fashion. Since people may have a usual tendency to be either high or low disclosers generally, one should have equivalent proportions of each in the four treatment conditions. To check for such a distribution (which would occur with effective randomization), the baseline or initial disclosure of the experimental subjects was compared. The baseline period consisted of the disclosure period before the

beginning of treatment. Using either the intimacy level of the topic selected or the number of self-references per minute, it is hypothesized that no significant differences would be found between the four groups in the baseline disclosure period.

Finding the baseline level of a subject's self-disclosing manner prior to any experimental treatment has been frequently done in past research. For example, in Powell's (1968) study on the effectiveness of various interviewer interventions, the experimenter kept silent in the first ten minutes of the interview. The purpose was stated as an attempt to establish the subjects' operant level of self-disclosure. Similarly, Savicki (1972) defined as the baseline the first trial when a subject first chose a topic from a 10-item list. Given his sample of college students, he assumed that this baseline level reflected the level at which the subject would start disclosing to an unknown student on campus. As expected, he found no significant differences between groups in this pretreatment trial both in terms of level and duration of disclosure. Roth and Kuiken (1975) considered self-disclosure on two preliminary topics as the initial baseline level of nonimmediacy in each subject's speech. The final scores computed consisted of the differences between the average number of nonimmediacy categories per line on these two topics and the average number of nonimmediacy categories per line on each of the four test topics. In a study by Doster

and Brooks (1974), these authors calculated an estimate of their subjects' initial disclosing behavior prior to the modeling intervention later provided by an interviewer's self-disclosure. However, they used this baserate level score as a covariate for an analysis of covariance. The present study also employed this statistical method since it is judged statistically more powerful than the former method of using simple differences between pre- and posttreatment scores.

The main purposes for determining a baseline, pretreatment level in self-disclosure can be explicated as follows. A first point is that it provides a warm-up period for an acquaintance process. Also, as previously stated, it enables the researcher to check that ordinarily high or low self-disclosers have not been disproportionately placed in the treatment groups. The expectation is, thus, of no significant differences between groups. Thirdly, by using this score as a covariate, it renders all baserate levels of subjects constant in terms of their later test levels. As such, it gives a better indication of true change from pretreatment to posttreatment conditions. In other words, the statistical analysis would more directly test the effects of the experimental manipulations by eliminating the error due to a priori differences.

Preliminary Training Stage

The eight persons selected to serve as confederates

were randomly placed in one of four treatment conditions. Step one of their training consisted of a presentation of the material involved in the experiment proper with an explanation of the procedure to be undergone in each interview. The confederates also received an instruction sheet detailing the specifics of their participation; these sheets can be referred to in Appendix A, B, C, and D.

The instructions pertaining to each of the four treatment conditions are summarized in terms of the four possible classifications:

- (a) HIGH - a maximizing of the number of self-referrent words per topic discussed; no less than eight such words was required per topic.

 - absence of any impersonal words or expressions; to clarify, by impersonal words or expressions are meant the following terms: "on, il y en a qui..., la plupart du monde, les gens, tu", that is: "one, there are some who..., most people, people, you".
 - three topics of conversation belonging to the seventh level of intimacy, as mentioned previously.
- (b) LOW - a maximizing of the number of impersonal words or expressions.

 - an absence (with an allowance of three) of any self-referrent words.

- three topics of conversation belonging to the second level of intimacy, as mentioned earlier.

(c) PRESENT

- use of at least three expressions with direct reference to the present, for example: "maintenant, à ce moment-ci", that is, "now, at this time"; such an expression had to be used in the first sentence employed for each topic by the confederates.
- only verbs in the present tense throughout the confederates' disclosure time.
- three topics of conversation, worded to refer to the present.

(d) PAST -- use of at least three expressions with direct reference to the person's past, where past was defined as at least three years ago.

Examples of such expressions are: "il y a 3, ou 4, ou 5, ... ans; adolescente...; dans le passé", that is, "three, or four, or five, ... years ago; as an adolescent; in the past".

At least one of the expressions used per topic had to specify the time in terms of number of years ago or the year that the event had occurred.

- only verbs in the past tense throughout the disclosing time.

- three topics of conversation, worded to refer to the past.

The four treatment conditions involved combinations of the above. In other words, the confederates had to fulfill two of the above conditions, that is, either HIGH or LOW and either PRESENT or PAST. Thus, two confederates were instructed in each of the following: HIGH-PRESENT; LOW-PRESENT; HIGH-PAST; or LOW-PAST. Each pair of confederates per cell had no knowledge of the instructions given to the other confederates in the other treatment conditions. Also, they were naive as to the hypotheses and expectations of the research.

All other instructions, given to the confederates were identical. They were asked to dress casually, with no jeans or fancy dress, in order to control for possible differences that might result from this variable. Also, this probably ensured the least possible differences on the average between the confederates and the naive subjects in terms of dress. The former were strongly urged not to talk or otherwise interrupt the experimental subjects during their discourses and to limit conversation between topics. It was also emphasized that, in all respects, the confederates were to behave as if they were naive subjects during the interviews. This was to ensure equivalence in role status between dyadic partners and thus minimize the effects of modelling.

Following this first step in the training, the confederates were given at least two days in order to learn the procedure and to compose self-disclosure excerpts that conformed to their respective conditions. Thus, apart from the criteria directly involved in the experiment, there was room for individual variation in specific content of what was to be revealed by the confederates. It was felt that this would allow greater naturalness and spontaneity in the confederates' manner of disclosing as compared to a procedure where they would have to memorize prewritten disclosure excerpts.

The second step involved a rehearsal with the experimenter. This permitted the confederate to become concretely familiar with the procedure and to have some practice, with feedback, in trying out her three topics of self-disclosure.

Thirdly, each confederate underwent a practice session with one of the eight practice subjects. Since these interviews were identical to those that would follow in the experiment proper with the naive subjects, they served the dual purpose of checking on the smoothness of carrying out the procedure, and principally, of verifying the disclosures of the confederates. Prior to the experiment proper, those taped practice sessions were checked to ascertain the fulfillment of the treatment conditions by the confederates. The aspects considered were: the topic itself, the number of self-referrent words used per topic

discussion, the use of impersonal words or expressions verbalized per topic discussion, the number of verbs in the present tense, the number of verbs in the past tense and the absence of future tense verbs. This analysis showed that confederates had indeed learned their roles accurately, according to their specific treatment conditions. This was confirmed by the responses of the practice subjects on the post-interview questionnaire. Confederates in the present or past conditions had been perceived as such. Also, confederates in the high intimacy conditions were rated as more intimate and personal than those in the low intimacy conditions.

Experiment Proper

Location and Arrangement of Apparatus. The experiment took place at the Guidance Centre at the University of Ottawa. Interviews were held in three similar offices in this building. Two identical chairs were in a slanted position such that the two people would semiface each other. A distance of approximately 30 inches separated the two people. A small low table was situated in the corner formed by the two chairs. Under this table was the tape recorder. On top of it lay the stopwatch, the minute minder, two HB lead pencils, and two information packages turned over so that either letter "A" or "B" on the back of the topic list was visible. The information package for the naive subject comprised copies of the following:

(a) the two-page instruction sheet outlining the procedure, see Appendix E; (b) the 45-item topic list, labelled "A" on the back, see Appendix F; (c) a 3" by 5" white index card which served for all responses, see Appendix G. For the confederate, the information package was identical except that an additional index card was included to indicate timings and the letter "B" figured on the back of the same topic list. Two copies of the post-interview questionnaire were to be found face down on a chair or desk nearby.

Introductory Procedure. Naïve subjects had been contacted and assigned a convenient time for their interviews. When asked to volunteer, they had been told that they would participate in a 30-minute interview session with another female student with whom they had had no previous contact. The aim was stated as a study of social interaction to investigate what happens when two people meet for the first time. No other details were given before the experiment.

The naïve subjects came directly to the Guidance Centre and were asked to sit in the waiting room until called for. The confederates waited in the offices reserved for the experiment. The latter had been given a list of the names of the naïve subjects to make sure that they were indeed strangers. Each subject was greeted personally and escorted to the office. The dyadic partners were then introduced, mentioning only that both were students from the University of Ottawa. It was observed that the nature

of the study demanded that both be complete strangers until this introduction, thus explaining why each had been waiting in separate places. The only verbal stipulations given were the following: (a) a brief statement of what the experiment would involve by pointing out the material on the table; (b) a request to avoid all talking not related to the context of the study as such until the end of the encounter; (c) an explanation that person "B" (always the confederate) had been haphazardly assigned the role of timekeeper and thus would be in charge of the stopwatch and minute minder throughout so as to obtain standardization by always using the same individual; to compensate, person "A", that is, the naive subject, was told that she would be required to speak on four topics whereas her partner only had three topics of discourse; (d) a promise that feedback would be welcome at the end of the encounter and that further details regarding the nature of the study and its findings could be sent to the participants on request. After these clarifications, the matched pair were left alone.

Actual Interview Procedure. The two members of the dyad began by reading over the instructions carefully. Then, the naive subject looked over the topic list and selected one from the 45 available. This choice was made on the basis of her willingness to talk openly and honestly about herself as pertained to that topic. She then wrote down the number corresponding to her topic choice on the

index card on the line labelled "1er tour", that is, first turn. At this point, the confederate started the tape recorder. Also, the latter set the minute minder to three minutes and clicked on the stop watch. The naive subject then spoke about herself as related to her topic choice for approximately three minutes. The bell of the minute minder signalled the end of the allotted time. The confederate then jotted down the precise time recorded by the stopwatch. This first trial was to be regarded as a pretreatment trial, giving a baseline level of the naive subjects' self-disclosure style in a first encounter. It was then the confederate's turn. She would also read through the topic list, pretending to select one in the same way that the naive subject had done, so that there would be no doubts that she too was naive. When ready, the stopwatch and minute minder were reset and the confederate similarly discoursed for three minutes, that is, until the sound of the bell. As explained in the preceding pages, her topics had been preselected.

These turns continued in this fashion until the naive subject had talked on four self-disclosure topics and the confederate on her three topics. Thus, this stage of the experiment began and ended with self-revelations on the naive subject's part. At completion, the tape recorder was turned off. The matched pair then answered the post-interview questionnaire. This questionnaire

provided a check of the effectiveness of the experimental manipulations. The first question asked naive subjects to rate their partner's intimacy level in self-disclosure on a 7-point Likert scale, ranging from "extrêmement intime et personnelle" to "pas du tout intime et personnelle", that is, from "extremely intimate and personal" to "not at all intimate and personal". It was expected that confederates in the high intimacy conditions would be perceived as being more intimately self-revealing by their dyadic partner than confederates in the low intimacy conditions with respect to their partner's perception. A second question that the subjects responded to was whether or not they felt that their partner's disclosure was chiefly related to her past or to her present life situation. Obviously, the answers to this query helped to establish the fulfillment of the past versus present conditions by the confederates. The post-interview questionnaire may be referred to in Appendix H.

Subjects were thanked for their participation. Those wishing further information were sent a copy explaining the design and results by mail at a later date.

Each confederate partook in seven interviews with naive subjects. Given the two confederates per condition, this meant that 14 naive subjects received one of the four experimental treatments. The total of 56 taped sessions was then subjected to an analysis, giving attention to the intimacy level of the topics chosen by the naive

subjects and the number of self-references per minute verbalized for each of the topics of self-disclosure. With this data and the hypotheses already put forward, the statistical analyses can now be reported in the next chapter.

CHAPTER III

RESULTS

This section deals with the experimental findings of the present study and, for this purpose, is divided into four areas. At first, a randomness verification was made to verify that subjects were equally distributed into the treatment cells, in terms of their characteristic disclosure levels. Next, one will check the adequacy of the confederates' training based on a post-interview questionnaire. Thirdly, the outcome of the analyses testing the hypotheses are brought forth using the two measures of self-disclosure intimacy: pre-rated intimacy levels and number of self-references per minute as scores. As a fourth and last point, the correlation coefficient computed between these two measures is reported.

The alpha level to test out the predictions was set at .05. Given the small number of subjects per cell, this seemed a justifiable significance level and has often been used in previous social psychological studies of this nature.

Randomness Verification

In this design, naive subjects were randomly assigned to one of four treatments. A randomness check was conducted in order to make sure that, in the baseline period before exposure to the experimental manipulations, initial differences between groups did not exist in terms of self-

disclosure intimacy levels. To do so, a 2 (intimacy level) by 2 (time orientation) analysis of variance was performed with each of the two dependent measures: pre-rated intimacy levels and number of self-references per minute.

As Table 1 indicates, when the pre-rated intimacy level of the first topic chosen by naive subjects was examined, no significant main effects or interaction effects were found between groups. The F values were too small and thus the probabilities too large ($p > .05$) for groups receiving different disclosure intimacy levels ($F_{1,52} = 3.20$) and different time-related disclosures ($F_{1,52} = .20$) by the confederates as well as in a combined intimacy by time effect ($F_{1,52} = .80$).^a

Similarly, as predicted, the F values failed to achieve adequate levels of significance ($p > .05$) when groups were compared using the baseline number of self-references per minute. Results in Table 2 demonstrate that this holds true for intimacy level ($F_{1,52} = .55$), time-related content ($F_{1,52} = .12$), and the interaction component of these two independent variables ($F_{1,52} = .04$).^b

Therefore, from these statistical analyses, one finds support for the position that naive subjects were randomly distributed as to predisposed intimacy level within the four treatment groups.

Experimental Manipulations Check:

Post-interview Questionnaire

^aBaseline means for pre-rated intimacy levels were: 5.86, 5.71, 4.21 and 5.00.

^bBaseline means for self-references were: 11.57, 10.72, 10.43 and 11.09.

Table 1

ANOVA:

Pre-rated Intimacy Scores in the Baseline Period

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u> ^a
Intimacy level	16.0	1	16.0	3.20
Time orientation	1.0	1	1.0	.20
Interaction	4.0	1	4.0	.80
Error	260.0	52	5.0	
Total	281.0	55		

^aF is NS, with $p > .05$.

Table 2

ANOVA:

Number of Self-references per Minute in the Baseline Period

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u> ^a
Intimacy level	11.60	1	11.60	.55
Time orientation	2.48	1	2.48	.12
Interaction	.78	1	.78	.04
Error	1096.24	52	21.08	
Total	1111.10	55		

^aF is NS with $p > .05$.

In addition to the tape checking of a practice interview for the confederate, the results of the post-interview questionnaire were examined to test the effectiveness of the experimental manipulations. The naive subjects' perceptions of the confederates' form and level of disclosure were taken as a measure of the adequacy of the manipulations.

Perceived intimacy level: Question A

From the first query on the questionnaire, the naive subjects' answers based on their ratings of a 7-point scale indicated how they had perceived the intimacy level of the confederates' disclosures. The results of a 2 by 2 analysis of variance are reported in Table 3. Confederates who had been taught to disclose with high intimacy were rated as being more intimate than confederates who had been instructed to be superficial ($F_{1,52} = 90.64, p < .001$). Naive subjects' ratings were not affected by the present versus past disclosure conditions ($F_{1,52} = .94, p > .05$). Of interest, however, is the significant time by intimacy level interaction effect ($F_{1,52} = 5.49, p < .05$) manifested in the naive subjects' perceptions of intimacy alone. Figure 1 places the means into perspective so that the nature of this interaction can be illustrated. Simple effects F tests were made to discover the degree to which this variability was attributable to the past-present component in the HIGH and LOW treatment groups taken separately. When only the two HIGH groups were analyzed, a significant F was revealed, as shown in Table 4

92

92

Table 3

ANOVA: Subjects' Perceptions of Confederates'
Degree of Intimacy, Post-interview Questionnaire

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Intimacy level	85.02	1	85.02	90.64*
Time orientation	.88	1	.88	.94
Interaction	5.15	1	5.15	5.49**
Error	48.79	52	.94	
Total	139.82	55		

* $p < .001$ ** $p < .05$

Figure 1

Illustration of Means of Naive Subjects' Perceptions of Confederates' Intimacy to show Interaction Effects

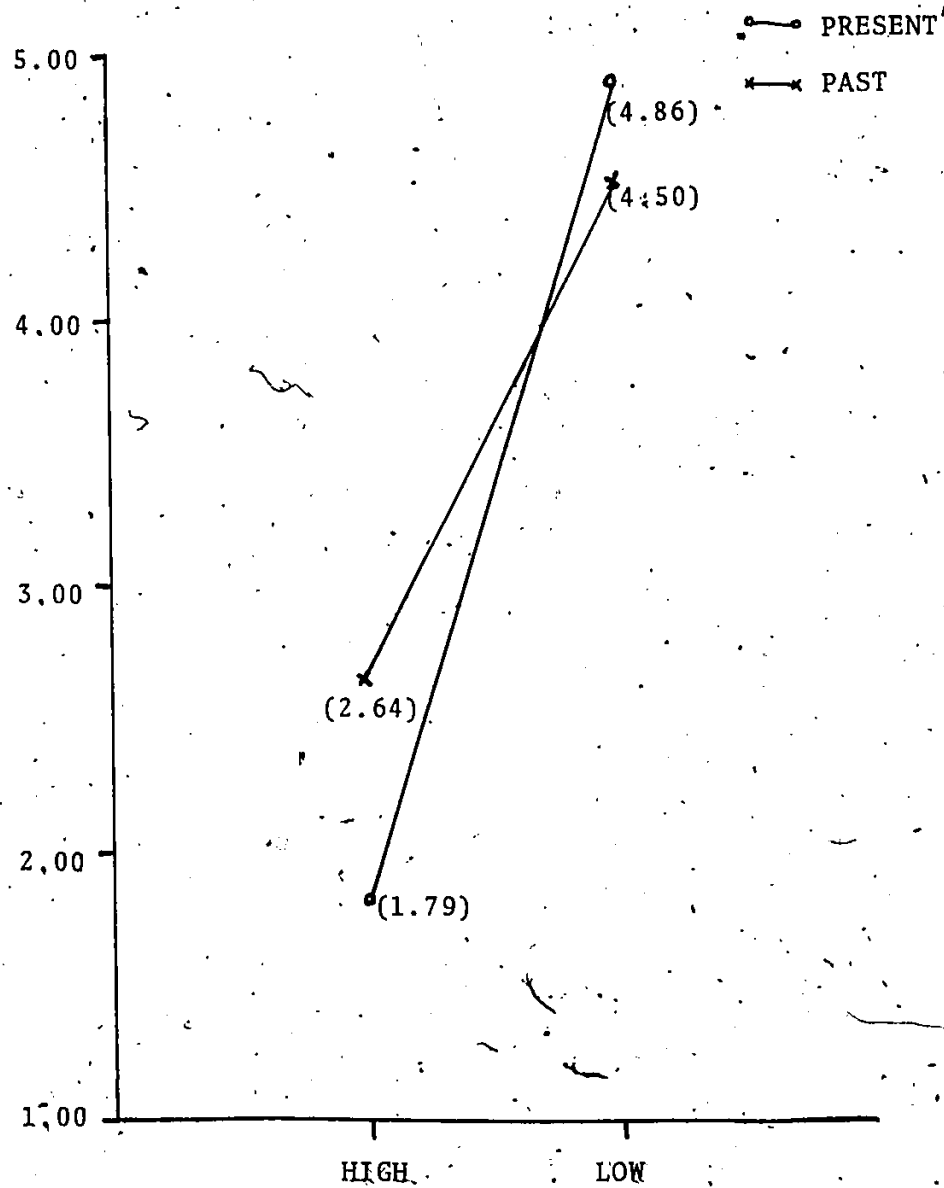


Table 4

ANOVA: High Treatment Subjects' Perceptions of
Confederates' Degree of Intimacy,
Post-interview Questionnaire

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Time orientation	5.10	1	5.10	6.12*
Error	21.60	26	.83	
Total	26.70	27		

* $p < .05$

($F_{1,26} = 6.12, p < .05$). In contrast, by referring to Table 5, one sees that the past-present condition seemed to produce negligible differences in the two LOW groups, as demonstrated by a very small F value ($F_{1,26} = .86, p < .05$). The implications of this finding will be discussed later. What is important at this point is the significant effect found in the perceptions of intimacy in regards to the manipulation of this intimacy level.

Perceived time orientation: Question B

In the second question of the post-interview questionnaire, the naive subjects indicated if they perceived their partners' time orientation in disclosures to be past- or present-oriented. A chi-square statistic was employed to verify that subjects' checked off "past" when the confederates had been trained to be past-disclosing, and similarly, that "present" was designated by subjects' paired with confederates instructed in the present condition. Looking at Table 6, one finds corroborative evidence for these assertions. More specifically, the null hypothesis predicting that perceived past and actual past conditions came from the same population is tenable ($\chi^2 = .714, p > .05$), as is the counterpart hypothesis for perceived and actual present treatments ($\chi^2 = .143, p > .05$).

To make sure that the difference between ratings of past in the past treatment groups were significantly more numerous than the past ratings for the present condition, a

96

96

Table 5

ANOVA: Low Treatment Subjects' Perceptions of
Confederates' Degree of Intimacy,
Post-interview Questionnaire

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u> ^a
Time orientation	.90	1 ^a	.90	.86
Error	27.20	26	1.05	
Total	28.10	27		

^aF is NS with p > .05.

Table 6

Chi-square Analysis on Subjects' Perceptions
of Confederates' Time Orientation

Perception: Condition	Category ^a		χ^2 b
	High	Low	
Present:Present			
Expected	14	14	.714
Observed	13	11	
Past:Past			
Expected	14	14	.143
Observed	13	13	

^aNumbers indicate frequencies per cell.

^b χ^2 is NS with $p > .05$.

difference of proportions test was performed (Taylor, 1972). From Table 7, the highly significant z -value of 11.56 provides evidence for this statement at a probability level greater than .001.

For now, let us turn to the results involved with the actual dependent measures directly related to the hypotheses of this paper: the pre-rated intimacy levels and the number of self-references per minute.

Pre-rated Intimacy Levels

The pre-rated intimacy level of the naive subjects' selected topics for self-disclosure was one of the two criterion variables. The means and standard deviations of the four treatment cells are listed in Table 8.

Using a BMDP statistical package computer program, an analysis of covariance with repeated measures was conducted on the pre-rated intimacy level scores, according to each naive subject's topic selection for self-disclosure (BMDP Bio-medical Computer Programs, 1977). The baseline or pretreatment trial score was the covariate which means that the other three trial scores were adjusted as if this baseline measure were fixed. This assured us that individual differences due to subjects' initial or characteristic level were controlled for so that treatment scores were free of this contamination. One may refer to Table 9 in order to compare the adjusted cell means with the actual means.

Table 10 shows the results of this analysis of covariance

Table 7

Difference of Proportions Test on Subjects' Perceptions
of Confederates' Time Orientation

Perception: Condition	<u>N</u>	<u>p</u> ^a	<u>q</u> ^b	<u>z</u>
Past:Past	28	.929	.071	11.56*
Past:Present	28	.143	.859	

* $p < .001$

^ap refers to observed frequency divided by total N.

^bq refers to $1 - p$.

Table 8
Actual Means and Standard Deviations of
Pre-rated Intimacy Levels

Treatment condition	<u>N</u>	Mean	<u>SD</u>
High-Present	14	6.36	2.29
High-Past	14	5.38	2.04
Low-Present	14	5.07	2.12
Low-Past	14	4.76	2.47
High	28	5.87	2.21
Low	28	4.92	2.29
Present	28	5.71	2.29
Past	28	5.07	2.27
Overall	56	5.39	2.30

101

101

Table 9

Adjusted Means of Pre-rated Intimacy Levels

Treatment condition	Adjusted Mean
High-Present	6.34
High-Past	5.37
Low-Present	5.09
Low-Past	4.77
Overall	5.39

Table 10

Analysis of Covariance with Repeated Measures
on the Pre-rated Intimacy Levels

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Intimacy level	34.28	1	34.28	6.53*
Time orientation	17.54	1	17.54	3.34
Interaction	4.28	1	4.28	.82
First covariate	.31	1	.31	.06
Error	267.64	51	5.25	
Total	324.05	55		

* $p < .05$

with repeated measures. A significant effect of confederates' intimacy level was found ($F_{1,52} = 6.53, p < .05$). (However, the hypothesis involving the time orientation of the confederates' self-disclosure was disconfirmed ($F_{1,52} = 3.34, p > .05$) although the trend followed the expected direction such that the mean intimacy levels of naive subjects in the present condition was higher than that of naive subjects exposed to past-oriented disclosures. There were no interaction effects of note ($F_{1,52} = .82, p > .05$).

Number of Self-references per Minute

The number of self-references per minute was computed for the baseline as well as for the three following experimental trials for each naive subjects. Means and standard deviations for each of the four treatment conditions are available in Table 11.

Again, with this score, a 2 (intimacy level) by 2 (time orientation) by 3 (number of trials) analysis of covariance with repeated measures was performed on the data. Since the baseline scores become the covariate, the new adjusted cell means for the three trials are given in Table 12. The results of the actual analysis are available in Table 13. Intimacy level of the confederates is shown to produce significant effects ($F_{1,52} = 4.16, p < .05$) whereas the F obtained from the time orientation of the self-disclosing content was smaller than necessary for an alpha level of .05 ($F_{1,52} = 3.65, p > .05$). Still, the obtained

Table 11

Actual Means and Standard Deviations of
Number of Self-references per Minute

Treatment condition	<u>N</u>	<u>Mean</u>	<u>SD</u>
High-Present	14	14.59	4.21
High-Past	14	11.68	4.81
Low-Present	14	11.12	4.05
Low-Past	14	11.65	4.35
High	28	13.14	4.72
Low	28	11.39	4.18
Present	28	12.86	4.46
Past	28	11.67	4.56
Overall	56	12.26	4.54

105

105

Table 12

Adjusted Means of Number of Self-references per Minute

Treatment condition	Adjusted mean
High-Present	14.47
High-Past	11.47
Low-Present	11.39
Low-Past	11.36
Overall	12.17

Table 13

Analysis of Covariance with Repeated Measures
on the Number of Self-references per Minute

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Intimacy level	85.53	1	85.53	4.16*
Time orientation	74.88	1	74.88	3.65
Interaction	112.63	1	112.63	5.48*
First covariate	395.91	1	395.91	19.28*
Error	1047.45	51	20.54	
Total	1716.40	55		

*p < .05

probability ($p = .062$) is only somewhat larger than the postulated confidence level, which does not overrule the possibility of an undetected effect due to this time condition. An interaction effect was found to be significant ($F_{1,52} = 5.48, p < .05$). The adjusted means for number of self-references per minute over the three experimental trials are graphically shown in figure 2 and suggest a similar trend as was found with perceived intimacy levels. In order to investigate more precisely the nature of this interaction, simple effect F tests were computed, taking the HIGH and LOW groups separately. The findings, as displayed in Tables 14 and 15, are similar to those obtained from such an analysis of naive subjects' perceptions of intimacy. In the HIGH groups, the past versus the present time orientation did create enough variability between groups to achieve a significant level ($F_{1,26} = 5.72, p < .05$). On the other hand, LOW groups could not be differentiated on the basis of this main effect ($F_{1,26} = .31, p > .05$).

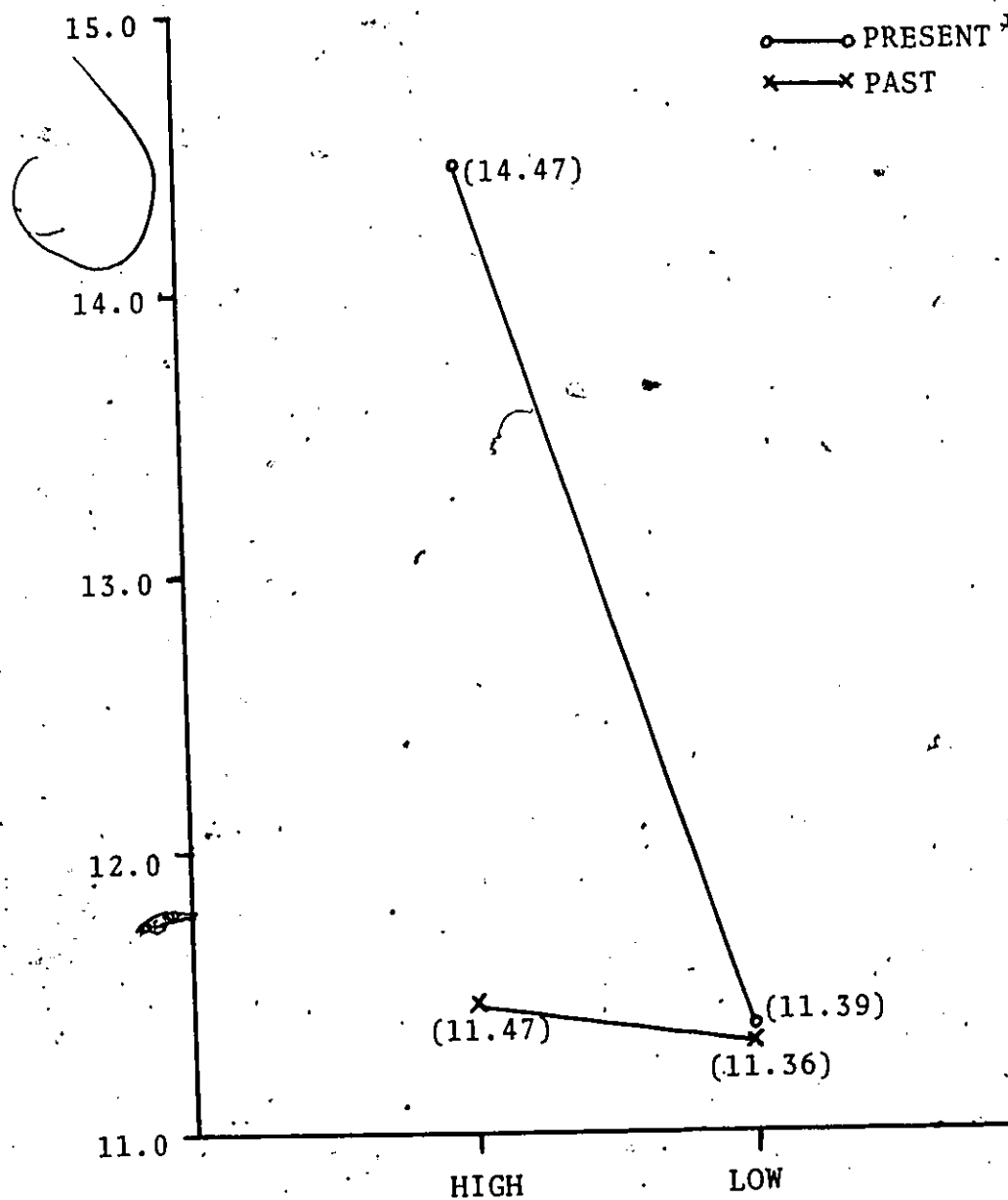
Correlation of Two Dependent Measures

A small and nonsignificant correlation coefficient of .22 was obtained by comparing the pre-rated intimacy level scores with the number of self-references per minute ($t_{54} = 1.70, p > .05$).

The next chapter concerns itself with a discussion of the relevance of these findings in relation to the hypotheses that were formulated in the first chapter.

Figure 2

Illustration of Adjusted Means of Number of
Self-references per Minute to show Interaction Effects



109

09

Table 14

Analysis of Covariance with Repeated Measures
on the Number of Self-references per Minute
for High Treatment Subjects

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Time orientation	19.69	1	19.69	5.72*
First covariate	.10	1	.10	.03
Error	86.11	25	3.44	
Total	105.90	27		

* $p < .05$

110

110

Table 15

Analysis of Covariance with Repeated Measures
on the Number of Self-references per Minute
for Low Treatment Subjects

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F^a</u>
Time orientation	2.22	1	2.22	.31
First covariate	.24	1	.24	.03
Error	181.50	25	7.26	
Total	183.96	27		

^aF is NS with $p > .05$.

CHAPTER IV

DISCUSSION

The following section is divided into four main parts. The first brings forth the relevant findings in light of the first hypothesis which relates to the influence of varying the intimacy level in one's self-disclosure upon another's depth of disclosure. Secondly, the results pertaining to the second hypothesis are presented; this dealt with the effect of different time orientation in self-disclosure communication with respect to a dyadic partner's intimacy level. In view of the overall results, a third part will suggest improvements in the present design. Finally, ideas for future research will be revealed which serve the purpose of taking the implications of this study one step further.

Hypothesis 1

The first hypothesis predicted that naive subjects in the HIGH conditions would have higher pre-rated intimacy levels and a larger number of self-references per minute than the naive subjects receiving low levels of intimacy from the confederates. This was confirmed on both counts. Since both dependent variables are measures of degree of intimacy in self-disclosure, this provides strong evidence in favor of the dyadic effect where "disclosure begets disclosure". In other words, a person receiving high levels of intimate self-disclosure will be more deeply personal than one obtaining

correlations of 1

communications of lower intimacy self-revelations by a dyadic partner. The massive amount of research reviewed in the first chapter has already given firm ground for the existence of such a reciprocating phenomenon. However, the findings of the present research strengthen and expand the generalizability of the dyadic effect to include a new cultural population, a design that achieves naturalness in the laboratory by allowing relative freedom in the confederates' self-disclosures, and the use of two measures of intimacy in self-disclosure which, although minimally related, yield parallel results.

Put into the context of a norm of reciprocity interpretation, the results suggest that the naive subjects exposed to a highly revealing partner felt an obligation to pay for such intimate information. Because of the limitations in time and structure of the setting, one of the only ways of eliminating the debt incurred and re-establishing a balanced relationship was for those subjects to disclose intimately in return. By contrast, when a naive subject was matched with a less intimate confederate, low-level communications in intimacy were sufficient to reduce the tension created by receiving benefits and thus to restore equity in the dyadic process. This can occur fairly automatically since this norm of reciprocity is internalized.

Hypothesis 2

Time orientation was not found to be a significant

main effect for either pre-rated intimacy levels or number of self-references per minute. Since the probability associated with the test of significance related to the former dependent variable was still fairly low ($p = .073$), it could be that a larger sample size might have produced an F of sufficient importance to reject the null hypothesis. At this point, the area remains a fruitful one for research, given the measure of pre-rated intimacy levels.

Turning one's attention to the results of the analysis of covariance using the number of self-references per minute as scores, the main effect due to time orientation, though nonsignificant, is still large enough to warrant further investigation ($p = .062$). As such, a larger sample size might have yielded significant results.

Thus, for both pre-rated intimacy levels and number of self-references per minute, time orientation just fails to attain significance. Results indicate a tendency for present disclosers to be responded to with self-disclosures of greater intimacy than past disclosers. Further research with larger numbers of subjects is called for.

At this time, however, one can strive to interpret the meaning of the interaction effects found with the self-references measure. A simple F test on the HIGH treatment groups did reveal that naive subjects receiving present-oriented disclosures responded with more intimacy than subjects who were disclosed only past-related material.

This significant trend was not found in the LOW conditions. One might therefore conclude that present disclosures of high intimacy are interpreted as indications of greater risk-taking and trust and more closeness and personalness which, as a consequence, represents the receipt of a larger benefit. From an equitable exchange viewpoint then, the recipient feels obligated to pay for such revelations with greater depth in self-disclosures. Since receiving low levels of self-disclosure already symbolized a greater distance and lower trust from the discloser, the second interactant will not feel any differential obligations when these disclosures are related to the past or present. From a Gestalt perspective, the "here and now" does imply a better ability to form intimate relationships when it comes to disclosing more private information. Greater difficulty seems to be encountered when self-revealing personal feelings in the present as it means taking greater risks and perhaps arouses greater fear or anxiety than past-related disclosures.

Support for the above conclusions is also given by results from the post-interview questionnaire in relation to the naive subjects' perceptions of the degree of intimacy displayed by their dyadic partner. Following through from a significant interactions effect, a simple one-way F test also revealed that HIGH treatment subjects rated present disclosers as being more intimate than past-related revealers.

Although this was not predicted directly, it coincides with

the overall conclusion that high-present disclosers will be perceived as more intimate and thus responded to with greater intimacy in self-disclosure..

Suggested Improvements

Measures of intimacy in self-disclosure

Some improvements in the present design could be made in terms of the dependent measures and the experimental procedure. To begin with, the recommendations with respect to the measures of intimacy in self-disclosure are discussed in relation to: (a) pre-rated intimacy levels, (b) number of self-references per minute, and (c) other possible measures.

Pre-rated intimacy levels. A pilot study should be conducted using a randomized sample of a female French-Canadian population of university students and asking them to rate Taylor and Altman's items on the 11-point intimacy scale. The resulting intimacy levels could differ from those made by the original male college population. The new ratings would therefore be more appropriate and more accurate for a repeat of the present study than the pre-rated intimacy levels utilized here.

Number of self-references per minute. The question arises as to whether impersonal pronouns such as "you" should be excluded completely and not scored or, as in Stone and Gotlib's study (1975), to count these as 1 point and personal pronoun statements as 2 points in the computation of the

average intimacy rating. The best solution would be to make separate analyses using both procedures and thus discover if one obtains the same results. Some authors do not score "we" as personal self-references, giving consideration only to "I" pronouns as indices of self-disclosure intimacy (McGuire et al., 1975; Goodstein et al., 1976). Again here, one could do separate counts with and without "we's" scored. It might show that such differences are not important and results for these scoring methods would be similar. However, one needs to ascertain this suggestion through actual comparisons.

Additional measures. Other dependent measures could be used in a design of this sort. These are listed in the following paragraphs.

(a) Scale ratings by judges. Ratings by two or more blind judges could be added to measure intimacy in self-disclosure. For this purpose, scales already exist accompanied by instruction manuals; for example, the 7-point Disclosure Rating Scale (Doster and Strickland, 1971) and three 5-point scales devised by Davis and Sloan (1974) to measure depth or intimacy level, emotional investment or intensity of affect and imitation or similarity of content between dyadic partners. It would also be possible for such trained judges to determine by some defined criteria the past or present relatedness of the naive subjects' self-disclosing content. Such ratings could test whether dis-

closing in the past engenders revelations with this time perspective from the other and whether present disclosures are reciprocated by the like.

(b) Confederates' perceptions of partners' intimacy. A subjective indication of self-disclosure intimacy by the experimental subjects could be the confederates' perceptions of this depth, using the same post-interview questionnaire filled out in this study by the subjects.

(c) Pre-rated intimacy levels in terms of future interactions. At the end of the interview, asking the naive subjects to list other self-disclosing topics that they would be willing to discuss with the same partner at some future time would allow one to obtain the pre-rated intimacy levels of these topics. This measure would provide the experimenter with an indication of the naive subject's willingness to self-disclose intimately and his readiness to continue the relationship.

(d) Liking scale question on post-interview questionnaire. Furthermore, the post-interview questionnaire could include a question to determine if more intimately or present disclosing confederates are liked more than their counterparts. Ratings on a 7-point scale on degree of liking would have implications for an interpersonal attraction framework.

Increasing the number of measures of intimacy in self-disclosure would help to define the dimensions

involved in intimacy and the specific trends of each relative to each other and as affected by various dependent factors.

Experimental procedure

Additional changes in the experimental design could focus on aspects of the procedure. Recommendations consider four areas: (a) naive subjects, (b) confederates, (c) baseline and experimental trials, and (d) a check on the effectiveness of deception.

Naive subjects. A larger number of naive subjects (around 20 per treatment cell) would more readily discern differences due to treatment effects. In the present study, there were only 14 naive subjects per cell, which meant only 7 per individual confederate. Also, the age range could be narrower by bringing down the upper age limit, from 36 years to perhaps 25 years old, so as to conform more closely to the average university student age. Since the aim is to generalize to a female university student population, it is advisable to select subjects during the usual school terms, that is, from September to April. In this study, summer school students were selected which included a proportion of people who have permanent employment (for example, teachers) and who are just taking courses out of interest/or to accumulate credits for an eventual degree. Such individuals may differ considerably from the younger, full-time university student. In this respect, the present sample may have contained more married subjects than would be expected in the general

student population. These efforts would thus ensure a more appropriate sample given the population.

Confederates. In order to eliminate differences that might be related to the personalities or physical appearances of the confederates, two possibilities are mentioned: (a) One could train the same person(s) for the various treatments. In order that such confederates would not become confused as a result of the crucial differences between instructions, they could be trained for one treatment at a time, undergoing the self-disclosing encounters for that treatment before receiving teaching on another manipulation. (b) At least three confederates could belong to each treatment cell.

In this research, having two such confederates per cell decreased the likelihood of placing more "appealing" (according to naive subjects' subjective appraisal) confederates within one cell as compared to having only four total confederates with one per cell. However, it could still be that the two persons instructed in the HIGH-PRESENT condition stimulated greater depth in self-disclosure by the naive subject, as a function of their individual characteristics, for example, by being more empathic in their non-verbal language.

As a further point, the training itself should be more extensive. Certain stipulations as in amount of eye contact allowed need to be controlled for. In this study, the high-rated intimacy topics given to the confederates appeared

to engender more interest and enthusiasm to participate from the confederates that were asked to self-reveal on these. This greater interest could have been communicated to their partners and had some effect on their manner of disclosing in turn. Such variables are, indeed, difficult to eliminate without subtracting from the freedom and naturalness of interaction by the trained participants, a factor that should not be easily discounted in self-disclosure studies or social psychological research in general.

Baseline and experimental trials. In this study, the baseline trial for the naive subject occurred prior to any self-disclosure from the trained dyadic partner. Some authors have defined the baseline period as one following self-disclosing of a fixed nature for all treatment groups by the confederate. One could argue for the validity of either procedure. A possible solution is to have two baseline periods: the first would be the same as in the present study and then, after a self-disclosure period of fixed intimacy at some moderate to low level by the confederate, the second baseline level could be computed. The remaining trials would be consistent with the procedure described in this research. Two separate analyses of covariance using one or the other baseline scores as the covariate would reveal any differences, if any, created by the two procedures.

One will recall two restrictions placed on the interactants during their encounters: (a) they were asked to talk

for three minutes without surpassing this limit: for some, this seemed too long, for others, too short a time; and

(b) they were instructed not to interrupt, or in any way respond to the disclosures by their partners: for some, this was frustrating. Such limitations provided greater experimental control and seem necessary to some extent to equalize what happens between pairs of subjects. Some possible alterations are: (a) give a lower and upper limit in the time range allowed for self-disclosure per trial, for example, from two to four or five minutes. Such a range would permit the computation of the amount of time spent disclosing per topic and thus provide a measure of duration of self-disclosure. Confederates, however, should maintain a fixed time period for each self-disclosure period unless one intends to investigate the effects of various durations of self-disclosure speech. (b) The naive subjects could be questioned in the post-interview questionnaire on their degree of wanting to respond to the other's self-disclosures and their feelings of frustrations on not being able to do so. This would serve several purposes: (a) it would clarify to what extent such a problem is commonly felt, (b) it could alleviate some of this frustration due to the opportunity afforded to express it, and (c) it would provide the experimenter with another measure that could conceivably vary between groups, that is, it could be hypothesized that subjects in the HIGH-PRESENT condition would show a greater

inclination to want to respond to the other.

Check on effectiveness of deception. Whether or not naive subjects intuited that their partners had had previous training might affect the nature of their self-disclosures. In order to verify that the confederates were not suspected of being anything but naive, an indirect query or open-ended question in the follow-up questionnaire could be added. Matarazzo, Saslow, and Pareis (1960) used two such questions: (a) "the purpose of this experiment was: _____" and (b) "my evidence for this was: _____".

The subjects' answers were scored by these authors on a 4-point rating scale that measured their awareness of treatment. Powell (1968) employed a variation of this method. Such a procedure is preferred to having more direct questions like "was your partner a confederate?", which might give too many falsely positive answers.

The above section has outlined some ideas and recommendations for changes in the present design. The purpose of such modifications would be to test out the conclusions of the present paper and to strengthen the implications that are drawn here.

Future Research Possibilities

Other than the improvements mentioned in the previous section, continued research involving the time orientation of self-disclosures is strongly underlined. In view of the results, future research would serve the following purposes.

(a) First, it would be an affirmation of the findings of the present paper, through repetition. (b) Such research would also provide an investigation of the various levels of intimacy in order to discover at which depth, past versus present disclosures take on importance. This suggests looking at time-orientation within moderate, high and extremely high self-disclosure intimacy. Relative to the latter, it could be that extremely pronounced intimacy is only perceived as signals of maladjustment when related to one's present situation and that receiving past and very high self-disclosures would not be interpreted in this negative light. (c) A third aim of further research would be an investigation of the meaning of past disclosures to see if talking in the past, as defined in this study, would produce similar results as disclosing about the past with a present focus, that is, by "presentizing the past". To exemplify the meaning of each, an example of talking in the past would be: "I felt so angry as a child when my parents treated me like that" whereas a present focus on the past might be a statement such as: "I feel so angry now about how my parents treated me as a child". Each statement or sentence could be rated separately, by first transcribing the text. Talking in the past could be defined, as in this study, as sentences containing only past-tense verbs with no present-oriented words. A presentized past could be reflected by sentences with a present-tense verb but in reference to some past

context or situation. According to Gestalt therapy, there should be a difference between these two ways of relating to one's past. More precisely, the presenticized past should be perceived and responded to with greater intimacy than exclusively past-related self-disclosures.

These represent concrete possibilities for furthering research in this area. Turning back to the study here, one can say that its focus on intimacy and present versus past orientation in self-disclosures enhances our understanding of the process involved within the development of interpersonal dyadic relationships. These aspects are crucial to the attainment of a balanced and equitable relationship that can promote both individual personal growth and meaning in addition to satisfaction in one's ongoing interactions with the world around us.

BIBLIOGRAPHY

- Allen, J. G. When does exchanging personal information constitute self-disclosure? Psychological Reports, 1974, 35(1), 195-198.
- Altman, I. & Taylor, D. A. Social penetration: The development of interpersonal relationships. New York: Holt, Rinehart & Winston, 1973.
- Bandura, A. & Walters, R. H. Social learning and personality development. New York: Holt, Rinehart & Winston, 1963.
- Banikiotes, P. G. & Daher, D. M. Similarity in level of disclosure and interpersonal attraction. Personality and Social Psychological Bulletin, 1974, 1(1), 73-75.
- Becker, J. F. & Munz, D. C. Extraversion and reciprocation of interviewer disclosure. Journal of Consulting and Clinical Psychology, 1975, 43(4), 593.
- BMDP Biomedical Computer Programs. University of California, Los Angeles: University of California Press, 1977.
- Brockner, J. & Swag, W. C. Effects of repeated exposure and attitudinal similarity on self-disclosure and interpersonal attraction. Journal of Personality and Social Psychology, 1976, 33(5), 531-540.
- Brooks, L. Interactive effects of sex and status on self-disclosure. Journal of Counseling Psychology, 1974, 21(6) 469-474.
- Bundza, K. A. & Simonson, N. R. Therapist self-disclosure: Its effect on impressions of therapist and willingness to disclose. Psychotherapy: Theory, Research and Practice, 1973, 10(3), 215-217.
- Cash, T. F., Stack, J. J. & Luna, G. C. Convergent and discriminant behavioral aspects of interpersonal trust. Psychological Reports, 1975, 37(3), 983-986.
- Certner, B. C. Exchange of self-disclosures in same-sexed groups of strangers. Journal of Consulting and Clinical Psychology, 1973, 40(2), 292-297.
- Chaikin, A. L. & Derlega, V. J. Liking for the norm-breaker in self-disclosure. Journal of Personality, 1974, 42, 117-129. (a)

- Chaikin, A. L. & Derlega, V. J. Variables affecting the appropriateness of self-disclosure. Journal of Consulting and Clinical Psychology, 1974, 42, 588-593. (b)
- Chelune, G. J. Self-disclosure: An elaboration of its basic dimensions. Psychological Reports, 1975, 36, 79-85.
- Chittick, E. & Himelstein, P. The manipulation of self-disclosure. Journal of Psychology, 1967, 65, 117-121.
- Cozby, P. C. Self-disclosure, reciprocity, and liking. Sociometry, 1972, 35, 151-160.
- Cozby, P. C. Self-disclosure: A literature review. Psychological Bulletin, 1973, 79, 73-91.
- Daher, D. M. & Banikiotes, P. G. Interpersonal attraction and rewarding aspects of disclosure content and level. Journal of Personality and Social Psychology, 1976, 33(4), 492-496.
- Davis, J. D. Self-disclosure in an acquaintance exercise: Responsibility for level of intimacy. Journal of Personality and Social Psychology, 1976, 33(6), 787-792.
- Davis, J. D. Effects of communication about interpersonal process on the evolution of self-disclosure in dyads. Journal of Personality and Social Psychology, 1977, 35(1), 31-37.
- Davis, J. D. & Skinner, A. E. G. Reciprocity of self-disclosure in interviews: modeling or social exchange. Journal of Personality and Social Psychology, 1974, 29(6), 779-784.
- Davis, J. D. & Sloan, M. L. The basics of interviewee matching of interviewer self-disclosure. British Journal of Social and Clinical Psychology, 1974, 13(4), 359-367.
- Derlega, V. J. & Chaikin, A. L. Norms affecting self-disclosure in men and women. Journal of Consulting and Clinical Psychology, 1976, 44(3), 376-380.
- Derlega, V. J. & Chaikin, A. L. Sharing intimacy. What we reveal to others and why. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.
- Derlega, V. J., Chaikin, A. L. & Herndon, J. Demand characteristics and disclosure reciprocity. Journal of Social Psychology, 1975, 97, 301-302.

- Derlega, V. J., Harris, M. & Chaikin, A. L. Self-disclosure reciprocity, liking, and the deviant. Journal of Experimental Social Psychology, 1973, 9, 277-284.
- Derlega, V. J., Walmer, J. & Furnam, G. Mutual disclosure in social interactions. Journal of Social Psychology, 1973, 90, 159-160.
- Derlega, V. J., Wilson, M. & Chaikin, A. L. Friendship and disclosure reciprocity. Journal of Personality and Social Psychology, 1976, 34(4), 578-582.
- Doster, J. A. & Brooks, S. J. Interviewer disclosure modeling, information revealed, and interviewee verbal behavior. Journal of Consulting and Clinical Psychology, 1974, 42, 420-426.
- Doster, J. A. & Strickland, B. R. Disclosing of verbal material as a function of information requested, information about the interviewer, and interviewee differences. Journal of Consulting and Clinical Psychology, 1971, 37, 187-194.
- Egan, G. Encounter: Group processes for interpersonal growth. Belmont, California: Brooks/Cole Publishing Company, 1970.
- Ehrlich, H. J. & Graeven, D. B. Reciprocal self-disclosure in a dyad. Journal of Experimental Social Psychology, 1971, 7, 389-400.
- Fagan, J. & Shepherd, I. L. Gestalt therapy now: Theory, techniques, applications. Palo Alto, California: Science and Behavior Books, Inc., 1970.
- Fantasia, S. C. & Lombardo, J. P. The effects of instructions on self-disclosure. Journal of Psychology, 1975, 91(2), 183-186.
- Feigenbaum, W. M. Reciprocity in self-disclosure within the psychological interview. Psychological Reports, 1977, 40(1), 15-26.
- Getsinger, S. H. Sociopathy, self-actualization and time. Journal of Personality Assessment, 1976, 40(4), 398-402.
- Giannandrea, V. & Murphy, K. C. Similarity self-disclosure and return for a second interview. Journal of Counseling Psychology, 1973, 20, 545-548.
- Gitter, A. & Black, H. Is self-disclosure self-revealing? Journal of Counseling Psychology, 1976, 23(4), 327-332.

- Goodstein, L. D., Goldstein, J. J., D'Orta, C. V. & Goodman, M. A. Measurement of self-disclosure in encounter groups: A methodological study. Journal of Counseling Psychology, 1976, 23(2), 142-146.
- Goodstein, L. D. & Reinecker, V. M. Factors affecting self-disclosure: A review of the literature. In B. A. Maher (Ed.), Progress in experimental personality research (Vol. 7). New York: Academic Press, 1974.
- Gouldner, A. W. The norm of reciprocity: A preliminary statement. American Sociological Review, 1960, 25, 159-178.
- Halverson, C. F. & Shore, R. E. Self-disclosure and interpersonal functioning. Journal of Consulting and Clinical Psychology, 1969, 33, 213-217.
- Hurley, J. & Hurley, S. Toward authenticity in measuring self-disclosure. Journal of Counseling Psychology, 1969, 16, 271-274.
- Johnson, D. W. & Noonan, M. P. Effects of acceptance and reciprocation of self-disclosures on development of trust. Journal of Counseling Psychology, 1972, 19(5), 411-416.
- Jones, E. E. & Archer, R. L. Are there special effects of personalistic self-disclosure? Journal of Experimental Social Psychology, 1976, 12(2), 180-193.
- Jones, E. E. & Gordon, E. M. Timing of self-disclosure and its effect on personal attraction. Journal of Personality and Social Psychology, 1972, 24, 358-365.
- Jourard, S. M. Self-disclosure: An experimental analysis of the transparent self. New York: Wiley Interscience, 1971. (a)
- Jourard, S. M. The transparent self. New York: D. Van Nostrand Company, 1971. (b)
- Jourard, S. M. & Jaffe, P. Influence of an interviewer's disclosure on the self-disclosing behavior of interviewees. Journal of Counseling Psychology, 1970, 17, 252-257.
- Jourard, S. M. & Lasakow, P. Some factors in self-disclosure. Journal of Abnormal and Social Psychology, 1958, 56, 91-98.
- Jourard, S. M. & Resnick, J. Some effects of self-disclosure among college women. Journal of Humanistic Psychology, 1970, 10, 84-93.

- Kent, J. H. Relation of personality, expectancy and situational variables to self-disclosing behavior. Journal of Consulting and Clinical Psychology, 1975, 43(1), 120-121.
- Kohen, J. Liking and self-disclosure in opposite sex dyads. Psychological Reports, 1975, 36(3), 695-698.
- Kraft, L. W. & Vraa, C. W. Sex composition of groups and pattern of self-disclosure by high school females. Psychological Reports, 1975, 37(3), 733-734.
- Lombardo, J. P., Franco, R., Wolf, T. M. & Fantasia, S. C. Interest in entering helping activities and self-disclosure to three targets on the Jourard Self-Disclosure Scale. Perceptual and Motor Skills, 1976, 42(1), 299-302.
- Lord, C. G. & Velicer, W. F. Effects of sex, birth order, target's relationship and target's sex on self-disclosure by college students. Psychological Reports, 1975, 37(3), 1167-1170.
- Lynn, S. J. Three theories of self-disclosure exchange. Journal of Experimental Social Psychology, 1978, 14(5), 466-479.
- Mann, B. & Murphy, K. C. Timing of self-disclosure, reciprocity of self-disclosure and reactions to an initial interview. Journal of Counseling Psychology, 1975, 22(4), 304-308.
- Maslow, A. H. The farther reaches of human nature. New York: Viking Press, 1971.
- Matarazzo, J., Saslow, G. & Pareis, E. Verbal conditioning of two response classes: Some methodological considerations. Journal of Abnormal and Social Psychology, 1960, 61, 190-206.
- May, O. P. & Thompson, C. L. Perceived levels of self-disclosure, mental health, and helpfulness of group leaders. Journal of Counseling Psychology, 1973, 20, 349-352.
- McAllister, A. & Kiesler, D. J. Interviewee disclosure as a function of interpersonal trust, task modeling and interviewer self-disclosure. Journal of Consulting and Clinical Psychology, 1975, 43(3), 428.
- McGuire, D., Thelen, M. H. & Amolsch, T. Interview self-disclosure as a function of length of modeling and descriptive instructions. Journal of Consulting and Clinical Psychology, 1975, 43(3), 356-362.

- Mehrabian, A. Attitudes inferred from neutral verbal communication. Journal of Consulting Psychology, 1967, 31(4), 414-417.
- Mehrabian, A. The effect of context on judgments of speaker attitude. Journal of Personality, 1968, 36, 21-32.
- Mehrabian, A. Immediacy: An indicator of attitudes in linguistic communication. Journal of Personality, 1966, 34, 26-34.
- Mehrabian, A. Nonverbal communication. Chicago, Illinois: Aldine & Atherton, Inc., 1972.
- Mehrabian, A. & Wiener, M. Non-immediacy between communicator and object of communication in a verbal message: Application to the inference of attitudes. Journal of Consulting Psychology, 1966, 30(5), 420-425.
- Merbaum, M. Conditioning of affective self-references as a function of the discriminative characteristics of experimenter manipulation. Journal of Abnormal Psychology, 1965, 70, 180-187.
- Merbaum, M. The conditioning of affective self-references by three classes of generalized reinforcers. Journal of Personality, 1963, 31, 179-191.
- Morgan, R. N. & Evans, J. F. Comparison of reinforcing and modeling techniques for promoting self-disclosure. Psychological Reports, 1977, 40(2), 363-371.
- Naranjo, C. Present-centeredness: Technique, prescription and ideal. In J. Fagan & I. L. Shepherd (Eds), Gestalt therapy now: Theory, techniques, applications. Palo Alto, California: Behavior Books, Inc., 1970.
- Passons, W. R. Gestalt approaches in counseling. New York: Holt, Rinehart & Winston, 1975.
- Pearce, W. B. & Sharp, S. M. Self-disclosure communication. Journal of Communication, 1973, 23(4), 409-425.
- Pederson, D. M. & Higbee, K. L. Personality correlates of self-disclosure. Journal of Social Psychology, 1969, 78, 81-89.
- Perls, F., Hefferline, R. F. & Goodman, P. Gestalt therapy: Excitement and growth in the human personality. New York: Dell Publishing Co. Ltd., 1965.

- Powell, W. Differential effectiveness of interviewer interventions in an experimental interview. Journal of Consulting and Clinical Psychology, 1968, 32, 210-215.
- Rogers, C. R. The process equation of psychotherapy. American Journal of Psychotherapy, 1961, 15(1), 27-45.
- Rogers, J. M. Operant conditioning in a quasi-therapy setting. Journal of Abnormal Social Psychology, 1960, 60, 247-252.
- Rogers, R. & Wright, E. W. Preliminary study of perceived self-disclosure. Psychological Reports, 1976, 38(3), 1334.
- Roth, M. & Kuiken, D. Communication immediacy, cognitive compatibility and immediacy of self-disclosure. Journal of Counseling Psychology, 1975, 22(2), 102-107.
- Rubin, Z. Disclosing oneself to a stranger: Reciprocity and its limits. Journal of Experimental Social Psychology, 1975, 11, 233-260.
- Rubin, Z. Naturalistic studies in self-disclosure. Personality and Social Psychological Bulletin, 1976, 2(3), 260-263.
- Salzinger, K. & Pisoni, S. Reinforcement of verbal affect responses of normal subjects during the interview. Journal of Abnormal & Social Psychology, 1960, 60, 127-130.
- Savicki, V. Outcomes of nonreciprocal self-disclosure strategies. Journal of Personality and Social Psychology, 1972, 23, 271-276.
- Schneider, D. J. & Eustis, A. C. Effects of ingratiation motivation, target positiveness and revealingness on self-presentation. Journal of Personality and Social Psychology, 1972, 22, 149-155.
- Sermat, V. & Smyth, M. Content analysis of verbal communication in the development of a relationship. Journal of Personality and Social Psychology, 1973, 26, 332-346.
- Smith, J. A. & Lewis, W. A. Effect of videotaped models on the communications of college students in counseling. Journal of Counseling Psychology, 1974, 21(1), 78-80.
- Sodikoff, C. L., Firestone, I. J. & Kaplan, K. J. Distance matching and distance equilibrium in the interview dyad. Personality and Social Psychology Bulletin, 1974, 1(1), 243-245.

- Stephan, W. G., Lucker, G. W. & Aronson, E. The interpersonal consequences of self-disclosure and internal attributions for success. Personality and Social Psychology Bulletin, 1976, 2(3), 252-255.
- Stone, G. L. & Gotlib, I. Effects of instruction and modeling on self-disclosure. Journal of Counseling Psychology, 1975, 22(4), 288-293.
- Strassberg, D. S. & Anchor, K. N. Rating intimacy of self-disclosure. Psychological Reports, 1975, 37(2), 562.
- Taylor, D. A. & Altman, I. Intimacy-scaled stimuli for use in studies of interpersonal relations. Psychological Reports, 1966, 19, 729-730.
- Taylor, D. A., Altman, I. & Sorrentino, R. Interpersonal exchange as a function of rewards and costs and situational factors: Expectancy confirmation-disconfirmation. Journal of Experimental Social Psychology, 1969, 5, 324-339.
- Taylor, P. A. An introduction to statistical methods. Itasca, Illinois: F. E. Peacock Publishers, 1972.
- Thibaut, J. W. & Kelley, H. H. The social psychology of groups. New York: Wiley, 1959.
- Vondracek, F. Behavioral measurement of self-disclosure. Psychological Reports, 1969, 25, 914.
- Vondracek, F. & Marshall, M. J. Self-disclosure and interpersonal trust: An exploratory study. Psychological Reports, 1971, 28, 235-240.
- Von Wright, J. & Kinnaunen, R. On scaling of future time. Perceptual and Motor Skills, 1976, 43, 1235-1241.
- Walker, L. S. & Wright, P. H. Self-disclosure in friendship. Perceptual and Motor Skills, 1976, 42(3), 735-742.
- Wiebe, B. & Scott, T. B. Self-disclosure patterns of Mennonite adolescents to parents and their perceived relationships. Psychological Reports, 1976, 39(2), 355-358.
- Wiener, M. & Mehrabian, A. Language within language: Immediacy, a channel in verbal communication. New York: Appleton Century Crofts, 1968.

Winer, B. J. Statistical principles in experimental design, (2nd Ed.). New York: McGraw-Hill, 1971.

Woodyard, H. D. & Hines, D. A. Accurate compared to inaccurate self-disclosure. Journal of Humanistic Psychology, 1973, 13(3), 61-67.

Worthy, M., Gary, A. & Kahn, G. Self-disclosure as an exchange process. Journal of Personality and Social Psychology, 1969, 13, 59-64.

Wortman, C. B., Adesman, P., Herman, E. & Greenberg, R. Self-disclosure: An attributional perspective. Journal of Personality and Social Psychology, 1976, 33(2), 184-191.

Zarje, T. H. & Boyd, R. C. An evaluation of modeling and experiential procedures for self-disclosure training. Journal of Counseling Psychology, 1977, 24(2), 118-124.

APPENDIX A

Instructions for High-Present Confederates

Le point central de cette recherche est la révélation de soi (i.e. "self-disclosure"). Ce concept peut se définir ainsi comme suit: "l'information verbale qu'une Personne A communique volontairement et honnêtement à une Personne B, toujours en relation avec elle-même."

Votre rôle sera de faire de la révélation de soi selon les conditions suivantes:

1. Vous devez vous servir aussi souvent que possible de ces mots de référence personnelle: je, me, moi, moi-même, ma, mon, mes, le mien, la mienne, les miens, les miennes, nous, notre, nos, nous-mêmes, le nôtre, la nôtre, les nôtres. Le minimum exigé pour remplir cette condition est de 8 de ces mots pour les 3 minutes de discussion d'un sujet de conversation. Toutefois, essayez d'utiliser ces mots aussi souvent que possible. N'employez pas des références plus impersonnelles telles que: on, il y en a qui..., la plupart du monde, les gens, etc.

2. Vous devez parler de chaque sujet de conversation en vous référant à votre situation immédiate et actuelle. Il doit s'agir de comment vous vous sentez ou agissez au présent, dans votre vie actuelle. Communiquez ceci à votre partenaire:

(a) en commençant chacun des 3 sujets de conversation avec

une des expressions suivantes: à ce moment-ci, à présent, maintenant, comme je me sens à ce temps-ci, actuellement. Employez au moins 3 de ces expressions dans les 3 minutes allouées par sujet de conversation.

(b) en employant seulement des verbes conjugués au présent.

3. Vos trois sujets de conversation sont les suivants, en ordre chronologique:

1er tour: Ce qui m'effraie le plus.

2ème tour: Si oui ou non, je me sens attrayante au sexe opposé.

3ème tour: Des faiblesses que je ressens avoir (que je pense avoir) dans ma personnalité.

APPENDIX B

Instructions for High-Past Confederates

Le point central de cette recherche est sur la révélation de soi (i.e. "self-disclosure"). Ce concept peut se définir comme suit: "l'information verbale qu'une Personne A communique volontairement et honnêtement à une Personne B, toujours en relation avec elle-même."

Votre rôle sera de faire de la révélation de soi selon les conditions suivantes:

1. Vous devez vous servir aussi souvent que possible de ces mots de référence personnelle: je, me, moi, moi-même, ma, mon, mes, le mien, la mienne, les miens, les miennes, nous, notre, nos, nous-mêmes, le nôtre, la nôtre, les nôtres.

Le minimum exigé pour remplir cette condition est de 8 de ces mots pour les 3 minutes de discussion d'un sujet de conversation. Toutefois, essayez d'utiliser ces mots aussi souvent que possible. N'employez pas des références plus impersonnelles telles que: on, il y en a qui..., la plupart du monde, les gens, etc.

2. Vous devez parler de chaque sujet de conversation en vous référant à une situation passée et non actuelle. Il doit s'agir de comment vous vous sentiez ou agissiez dans un temps passé, et plus spécifiquement, dans une période depuis au moins 3 ans. Communiquez ceci à votre partenaire:

- (a) en commençant chacun des 3 sujets de conversation avec une des expressions suivantes: il y a 3 (ou 4, 5, etc.) ans, quand j'étais plus jeune, adolescente, je..., en 1975 (ou 1974, 1973, etc.), dans le passé, etc.

Employez au moins 3 de ces expressions dans les 3 minutes allouées par sujet. Au moins une de ces expressions doit spécifier un temps précis; c'est-à-dire une des deux expressions: il y a 3 (ou 4, 5, etc.) ans ou en 1975 (ou 1974, 1973, etc.).

- (b) en employant seulement des verbes conjugués dans un temps passé tel que le passé, l'imparfait, etc.

3. Vos trois sujets de conversations sont les suivants, en ordre chronologique:

1er tour: Ce qui m'effrayait le plus.

2ème tour: Si oui ou non, je me sentais attirante au sexe opposé.

3ème tour: Des faiblesses que je pensais avoir (que je ressentais avoir) dans ma personnalité.

APPENDIX C

Instructions for Low-Present Confederates

Le point central de cette recherche est sur la révélation de soi (i.e. "self-disclosure"). Ce concept peut se définir comme suit: "l'information verbale qu'une Personne A communique volontairement et honnêtement à une Personne B, toujours en relation avec elle-même."

Votre rôle sera de faire de la révélation de soi selon les conditions suivantes:

1. Vous devez vous servir aussi souvent que possible des mots et expressions suivants: on, il y en a qui..., les gens..., la plupart du monde, etc. Ces termes sont souvent employés pour se référer à soi-même d'une façon impersonnelle. Essayez d'omettre autant que possible les mots de référence plus personnelle tels que: je, me, moi, moi-même, ma, mon, mes, le mien, la mienne, les miens, les miennes, nous, notre, nos, nous-mêmes, le nôtre, la nôtre, les nôtres. Un maximum de 3 mots de référence personnelle doit être utilisé.

2. Vous devez parler de chaque sujet de conversation en vous référant à votre situation immédiate et actuelle. Il doit s'agir de comment vous vous sentez ou agissez au présent, dans votre vie actuelle. Communiquez ceci à votre partenaire:

(a) en commençant chacun des 3 sujets de conversation avec

une des expressions suivantes: à ce moment-ci, à présent, maintenant, comme je me sens à ce temps-ci, actuellement. Employez au moins 3 de ces expressions dans les 3 minutes allouées par sujet de conversation.

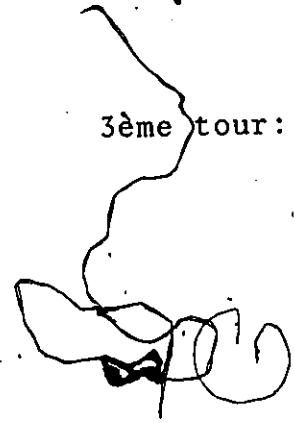
(b) en employant seulement des verbes conjugués au présent.

3. Vos trois sujets de conversation sont les suivants, en ordre chronologique:

1er tour: Des sujets de conversation qui m'ennuient.

2ème tour: Des intempéries (du mauvais temps) qui m'effraient (e.g. tempêtes de vent, le tonnerre, ouragans, etc.).

3ème tour: Mes sentiments face à me rendre à des "parties" ou autres soirées où il y a du plaisir bruyant.



APPENDIX D

Instructions for Low-Past Confederates

Le point central de cette recherche est sur la révélation de soi (i.e. "self-disclosure"). Ce concept peut se définir ainsi comme suit: "l'information verbale qu'une Personne A communique volontairement et honnêtement à une Personne B, toujours en relation avec elle-même."

Votre rôle sera de faire de la révélation de soi selon les conditions suivantes:

1. Vous devez vous servir aussi souvent que possible des mots et expressions suivants: on, il y en a, qui..., les gens..., la plupart du monde, etc. Ces termes sont souvent employés pour se référer à soi-même d'une façon impersonnelle. Essayez d'omettre autant que possible les mots de référence plus personnelle tels que: je, me, moi, moi-même, ma, mon, mes, le mien, la mienne, les miens, les miennes, nous, notre, nos, nous-mêmes, le nôtre, la nôtre, les nôtres. Un maximum de 3 mots de référence personnelle doit être utilisé.
2. Vous devez parler de chaque sujet de conversation en vous référant à une situation passée et non actuelle. Il doit s'agir de comment vous vous sentiez ou agissiez dans un temps passé, et plus spécifiquement, dans une période depuis au moins 3 ans. Communiquez ceci à votre partenaire:

- (a) en commençant chacun des 3 sujets de conversation avec une des expressions suivantes: il y a 3 (ou 4, 5, etc.) ans, quand j'étais plus jeune, adolescente, je..., en 1975 (ou 1974, 1973, etc.), dans le passé, etc.

Employez au moins 3 de ces expressions dans les 3 minutes allouées par sujet. Au moins une de ces expressions doit spécifier un temps précis; c'est-à-dire une des deux expressions: il y a 3 (ou 4, 5, etc.) ans ou en 1975 (ou 1974, 1973, etc.).

- (b) en employant seulement des verbes conjugués dans un temps passé tel que le passé, l'imparfait, etc.

3. Vos trois sujets de conversation sont les suivants, en ordre chronologique:

1er tour: Des sujets de conversation qui m'ennuyaient.

2ème tour: Des intempéries (du mauvais temps) qui m'effrayaient (e.g. tempêtes de vent, le tonnerre, ouragans, etc.).

3ème tour: Mes sentiments antérieurs face à me rendre à des "parties" ou autres soirées où il y a du plaisir bruyant.

APPENDIX E

Instructions for Naive Subjects

Chère étudiante,

Nous vous demandons de participer à un projet de recherche qui traite du processus d'interaction sociale. Pour simplifier, cela pourrait être décrit comme suit: qu'est-ce qui se passe lorsque deux personnes se rencontrent?

Votre partenaire et vous avez été placées ensemble au hasard.

La durée de votre participation sera d'environ 30 minutes.

Lisez d'abord les instructions au complet attentivement. Puis, lorsque vous et votre partenaire aurez terminé cette lecture, revenez au numéro 1 et suivez les étapes ci-dessous.

Voici comment vous devez procéder:

1. Près de vous il y a deux feuilles de papier. Celle intitulée "B" appartient à votre partenaire. Vous devez seulement vous servir de la feuille "A". Une petite carte blanche est attachée à cette feuille. En regardant la feuille "A", vous pouvez voir une série de 45 énoncés différents. Chacun représente un sujet possible de discussion où l'on parle de soi-même.
2. Notez qu'il y a aussi deux crayons et un chronomètre sur la petite table à votre côté.
3. Votre partenaire met le magnétophone en marche.
4. Maintenant, lisez bien tous les énoncés sur la feuille "A". Choisissez-en un sans trop tarder. Pour faire votre choix,

sélectionnez un énoncé (i.e. un sujet de conversation) sur lequel vous êtes prêtes à parler ouvertement et honnêtement de vous-mêmes. Indiquez le numéro (de 1 à 45) correspondant à l'énoncé que vous avez choisi sur la petite carte blanche. S'il-vous-plaît, laissez la feuille "A" sans aucune marque.

5. Lorsque vous aurez bien indiqué votre choix, demandez à votre partenaire de mettre le chronomètre en marche pour 3 minutes. (Votre partenaire sera en charge du chronomètre pour la durée de la rencontre). Puis, commencez à parler sur l'énoncé choisi d'une façon naturelle. Il est important de continuer à parler sur ce même sujet jusqu'à ce que les 3 minutes soient écoulées ou presque écoulées. Ne dépassez pas les 3 minutes.
6. Lorsque le chronomètre sonnera (après 3 minutes), ce sera alors le tour de votre partenaire. Elle choisit, de la même façon, un énoncé en se servant de la feuille "B". Elle suit alors la même procédure. Quoique cela puisse vous tenter, il est important de ne pas l'interrompre pendant ou après son discours.
7. Après les 3 minutes de votre partenaire, vous commencez alors votre deuxième tour. Regardez de nouveau la feuille "A" puis choisissez un deuxième énoncé. Il n'est pas permis de reprendre le même énoncé. Puis, répétez les instructions 4, 5, et 6.
8. C'est alors votre troisième tour (après le deuxième de

vosre partenaire). Encore, répétez les instructions 4,

5, et 6 en vous servant d'un troisième énoncé.

9. Faites de même pour votre quatrième et dernier tour.

L'entrevue est alors terminée.

A NOTER:

***Avant de partir, nous vous demandons de remplir un bref questionnaire de deux questions. Vous le trouverez sur le bureau dans la même pièce.

***Si vous désirez une copie décrivant d'une façon plus approfondie la nature de cette recherche, s'il-vous-plaît, laissez votre nom et adresse au dos de la petite carte sur laquelle vous avez indiqué vos choix et vos réponses au questionnaire.

***Nous vous prions de ne pas discuter de ce projet avec d'autres volontaires (par exemple, vos compagnons de classe) avant leur propre participation.

***Merci encore pour votre coopération.

APPENDIX F

Forty-five Item Self-disclosure Topic List

1. Les sujets sur lesquels je me sens bien renseignée.
2. Les fois où je me suis faite dire "mes quatre vérités" par un garçon. (i.e. Times when I have been "told off" by a boy.)
3. A quel point je deviens fâchée lorsque les gens me pressent.
4. Mes sentiments lorsque, de temps en temps, je me retrouve seule pour réfléchir.
5. Des mensonges que j'ai dits à mes parents.
6. Comment je me sens face aux nouvelles modes masculines.
7. A quel point j'aime parler avec d'autres personnes.
8. Ma vie sexuelle.
9. Si oui ou non je brise les règles.
10. A quel point je suis du genre à remettre les choses à plus tard.
11. A quel point je me soucie de ce que les autres pensent de moi.
12. Les animaux qui m'agacent ou qui m'effraient.
13. Mes sentiments face à la régulation des naissances (birth control).
14. D'où viennent mes parents et grands parents.
15. Ma vie amoureuse.
16. L'intensité de douleur que je peux tolérer.

17. Comment je réagirais si l'ami de ma meilleure amie me faisait des avances sexuelles.
18. Les gens de ma parenté (oncles, tantes, etc.) que je n'aime pas et pourquoi je ne les aime pas.
19. Une des meilleures choses qui me soit arrivée.
20. La première fois que j'ai embrassé un garçon.
21. Les rêves sexuels que j'ai faits.
22. Ce qui se passe chez moi lorsque je vois du sang.
23. Ce que je ferais si je devenais enceinte.
24. Les périodes de crises ou difficultés que j'évite ou je fuis.
25. Mes superstitions.
26. Si je suis plutôt du genre à écouter (i.e. "a listener") ou à parler (i.e. "a talker") dans les conversations sociales.
27. Le genre de choses que je n'aime pas faire devant les gens.
28. Mes sentiments face aux conventions concernant la sexualité avant le mariage.
29. Mes difficultés, s'il y a lieu, à recevoir l'attention favorable des personnes du sexe opposé.
30. Ce que j'aime de ma mère.
31. Les fois où j'ai été tentée de voler quelque chose.
32. Mes sentiments face à ma compétence sexuelle.
33. Les fois où mes parents ont été en colère contre moi.
34. Si oui ou non j'aime raconter des farces et histoires amusantes.
35. Ce que j'apprécierais le plus recevoir en cadeau.

36. Si oui ou non j'aime argumenter des points de vue contraires aux miens.
37. Les fois où j'ai dit à un garçon "ses quatre vérités" (i.e. "told him off").
38. Les malheurs possibles qui m'inquiètent.
39. La plus grande amitié que j'ai connue.
40. Les sentiments, s'il y a lieu, que je trouve difficiles à exprimer ou contrôler.
41. Les situations qui m'ennuient.
42. Les sentiments de culpabilité que j'ai (ou que j'ai eu) face à mon comportement sexuel.
43. Les situations qui m'irritent.
44. Le genre d'activités de groupe que j'aime habituellement.
45. Les mauvaises habitudes de mon père ou ma mère.

APPENDIX G

Subjects' Answer Card
for Topic Choice and the Questionnaire

A. Choix de sujets de conversation:

1er tour: _____

2ème tour: _____

3ème tour: _____

4ème tour: _____

B. Réponses au questionnaire:

(A) _____

(B) _____

AGE: _____

MARIEE (M) ou CELIBATAIRE (C): _____

APPENDIX H

Post-interview Questionnaire

Merci pour votre coopération. Avant de partir, veuillez répondre aux questions suivantes. Donnez seulement une réponse par question. Servez-vous de la même petite carte blanche pour y inscrire le numéro correspondant à votre réponse: c'est-à-dire, un numéro de 1 à 7 pour Question "A" et le numéro 1 ou 2 pour Question "B".

Vous venez d'avoir un entretien d'environ 30 minutes avec votre partenaire. La communication dont votre partenaire vient de vous faire part était-elle:

- (A)
- 1....extrêmement intime et personnelle
 - 2....très intime et personnelle
 - es 3....Assez intime et personnelle
 - 4....moyennement intime et personnelle
 - 5....peu intime et personnelle
 - 6....très peu intime et personnelle
 - 7....pas du tout intime et personnelle

(B) La communication de votre partenaire était-elle reliée surtout:

- 1....à son passé
- 2....à son présent