SOCIAL ANXIETY AND DEPRESSION: INTERPERSONAL BEHAVIOR AND REACTIONS

By

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The present study examined the self-disclosure of socially anxious and depressed-mood women students within the context of a face-to-face dyadic interaction. It also examined the influence of the interaction on their levels of affect, physiological arousal, and acceptance of their partners. The impact of the interaction on their partners' affect and acceptance was also explored. The results showed that anxious and depressed-mood subjects exhibited different, and specific patterns of inappropriate disclosure. The socially anxious subjects exhibited reduced amounts of nonreciprocal disclosure which was best characterized as moderate in nature. The depressed-mood subjects displayed increased amounts of overly intimate, negatively valanced disclosure. The results also indicated that before the interaction the subjects varied on the measures of affect and arousal as a function of their status on the subject selection variables and that the interaction had different effects on the different types of subjects. The socially anxious subjects were characterized by lower preinteraction levels of positive affect and higher levels of negative affect. The interaction had a negative effect on them, it maintained their low levels of positive affect, high levels of negative affect, and increased their levels of physiological arousal. The depressed mood subjects were characterized by lower preinteraction levels of positive affect, and higher levels of negative affect and physiological arousal. The interaction was positive for them, however, as they experienced increases in their positive affect and decreases in their negative affect. The socially anxious subjects were rejected by their partners but induced neither positive nor negative affect in them. The depressed-mood subjects
were not rejected by their partners but created an ambivalent emotional reaction in them. The results are discussed within an interpersonal framework and suggest that a reinterpretation of Coyne's (1976) model provides a good conceptual framework to explain these, and other recent results. The possible developmental framework for maladaptive interpersonal behaviours is explored within a modification of Arkin's (1981) social motivational model. The results of this study are also discussed in the context of a tripartite model of anxiety and depression and provide partial support for that model.
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Introduction

The important role of mutual self-disclosure in the development and maintenance of interpersonal relationships has resulted in a number of individuals speculating about the possible relationship between self-disclosure and mental health. As a result, a number of recent studies have attempted to determine the patterns of self-disclosure which may characterize individuals with various types of psychopathology and/or interpersonal problems. Interestingly, it appears that two almost completely distinct areas of research and literature have developed. The first goal of this paper, after providing a brief historical context, is to review these two previously diverse areas of research. The second goal of this paper is to present the results of a study which attempted to methodologically and conceptually integrate these two areas of research. This study examined the specificity of patterns of disclosure in individuals characterized as socially anxious and depressed. In light of recent conceptualizations of anxiety and depression it would seem that a study of this type would have to be considered not only timely, but perhaps essential.

Self-Disclosure: An Historical Perspective

Arguably, one of the most important process variables in the development of interpersonal relationships is mutual self-disclosure (e.g., Altman & Taylor, 1973). Reciprocal self-disclosure is a form of shared interpersonal exchange that is seen as necessary in the development and maintenance of social relationships (e.g., Chelune, 1979; Cohen, Sherrod, & Clark, 1986). People cannot enter into social transactions with others without revealing
something of themselves or being affected by what others reveal to them. It is this interactional nature of self-disclosure that has made it such an important class of behavior. There are a variety of conceptual definitions employed in the self-disclosure literature, each defining a somewhat different subset of self-disclosing behavior. However, in essence, self-disclosure is the act of verbally revealing oneself to another, and in a broad sense it may best be defined as any information about him/herself which Person A communicates to Person B (Cozby, 1973).

Self-disclosure, as a concept, was seen in the existential and phenomenological philosophies of Husserl, Heidegger, Sartre, Buber, and Merleau-Ponty (Chelune, 1979). In terms of its psychological origins, it can be traced back to 1948 when Kurt Lewin speculated about differences in initial openness with strangers and intimacy between friends, in Germany and the United States (Lewin, 1948). One of Lewin's students, influenced by his personality theory (Lewin, 1935), developed an instrument to measure the accessibility of self-information. She considered an unwillingness to reveal a particular item of information as an indication that it resided in a more central layer of the personality structure (Rickers-Ovsiankina, 1956). The important role of self-disclosure in developing intimacy with others, and its potential relationship to adjustment, has been discussed by such influential psychologists as Harry Stack Sullivan (1953), Erik Erickson (1963), and Carl Rogers (1970).

Unlike the origins of many other concepts in psychology, the beginning of extensive research into the concept of self-disclosure can be attributed to one individual, Sidney M. Jourard. In the late 1950s, Jourard became interested in studying the mentally healthy personality rather than the maladjusted one. Initially Jourard, a practising psychotherapist, was primarily concerned
with the implications of self-disclosure for mental health. Although Jourard suggested that the relationship between self-disclosure and mental health was curvilinear, with either too much or too little disclosure being associated with poor mental health, he concluded that in most instances the more self-disclosure the better (Jourard, 1958a). Jourard asserted that full and open communication promotes growth and in a healthy interpersonal relationship an individual is willing and able to communicate all of his real self to the other person (Jourard, 1958b). Correspondingly, neurotic individuals are unable to know or disclose their real selves. Jourard's (1959) demonstration of the reciprocity effect, which is the tendency of persons in a disclosure exchange to match each other in terms of intimacy and amount, may be considered the point at which the interest in self-disclosure on the part of psychologists was rekindled. Since that time, self-disclosure has become an important area for psychological research, primarily in response to the provocative findings of Jourard's studies.

Self-disclosure is used to refer to both a personality construct and a process variable that occurs during interpersonal interactions (Cozby, 1973). The initial research viewed disclosure as a relatively stable personality characteristic and involved numerous attempts by Jourard and others to demonstrate a relationship between disclosure and personal adjustment. Many of these studies used the Jourard Self-Disclosure Questionnaire (JSDQ) as the measure of self-disclosure and the Minnesota Multiphasic Personality Inventory (MMPI) as the index of mental health (e.g., Jourard, 1971; Mullaney, 1964). The only consistent finding from these studies was that questionnaire measures of self-disclosure are related negatively to the social introversion (Si) subscale of the MMPI.
Personality researchers have also examined the relationship between disclosure and more specific psychological characteristics and constructs. Jourard (1971) found a positive relationship between disclosure (on the JSDQ) and the Tennessee Self-Concept Scale. External locus of control, on the Rotter I-E Scale, was associated with less reported disclosure on the JSDQ (Ryckman, Sherman, & Burgess, 1973). Disclosure was negatively correlated with need for approval as measured by the Marlowe-Crowne Social Desirability Scale among college women (Brundage, Derlega, & Cash, 1977; Burhenne & Mirels, 1970) and men institutionalized in a psychiatric hospital (Anchor, Vojtisek, & Berger, 1972). A study with institutionalized schizophrenics found that trait anxiety was positively correlated with disclosure (Anchor, Vojtisek, & Patterson, 1973). In addition, a positive correlation between scores on the Taylor Manifest Anxiety Scale and disclosure among college women was also found (Duckro, Duckro, & Beal, 1976). However, a study which examined self-disclosure among socially anxious and nonanxious college women found that there was no difference between the groups in their reports of past disclosure on the JSDQ (Meleshko & Alden, 1988). Some studies have found that disclosure on the JSDQ was negatively related to neuroticism (Mayo, 1968; Pedersen & Higbee, 1969). Several studies have also examined the relationship between loneliness and self-disclosure. On questionnaire measures of self-disclosure, Berg and Peplau (1982) and Franzoi and Davis (1985) found that past disclosure was negatively correlated to loneliness for women, but that there was no relationship for men. However, Jones, Freemon, and Goswick (1981) found that there was no significant relationship between past disclosure and loneliness for either men or women.

The results of these types of studies were mixed and inconclusive, with about an equal number of studies finding a positive correlation, a negative
correlation, and no correlation (Stokes, 1987). After reviewing the literature relating questionnaire measures of self-disclosure to individual difference measures, Goodstein and Reinecker (1974) concluded that almost every specific finding was contradicted by another investigation involving similar design and the same or similar measures. Even within the same study (Pedersen & Higbee, 1969), contradictory results have been obtained depending on whether the 60-item or the 25-item version of the JSDQ was used. In general, most of these personality scale correlates have not been replicated when behavioral measures of disclosure are used rather than questionnaire measures (Vondracek, 1969). It has been widely suggested that there are serious problems with the JSDQ and questionnaire measures of disclosure in general, and as a result, most of the research that has used them to measure self-disclosure is of questionable value (e.g., Cozby, 1973; Raphael & Dohrenwend, 1987). This has led several writers to suggest that questionnaire measures of past disclosure are unsatisfactory and behavioral measures of self-disclosure should be utilized instead (e.g., Chelune, 1979; Stokes, 1987).

The early research which examined self-disclosure as a process variable in interpersonal relationships determined that self-disclosive exchanges generally follow a "reciprocity principle" (see reviews by Chaikin & Derlega, 1974; Chelune, 1979; Cozby, 1973). That is to say, that an individual tends to match his or her partner's level of disclosure. The typical reciprocity experiment places the subject in a disclosure exchange situation ostensibly to study conversation, acquaintanceship, or first impressions. The subject's partner is a confederate who starts the dyadic exchange by making either a high or a low intimacy disclosure. The subject's own disclosure after listening to the confederate's disclosure is the dependent variable. The
results of this manipulation are as robust and reliable as any found in the psychological literature: subjects disclose more intimately after hearing the high intimacy disclosure (Archer, 1979).

Indeed, the reliability of the effect is such that a number of early writers suggested that nonreciprocal disclosure might be an indicant of psychological maladjustment (e.g., Jourard, 1971). This in turn served to stimulate interest into the relationship between self-disclosure and mental health and several recent studies have attempted to determine the patterns of nonreciprocal disclosure which may characterize individuals with various types of psychopathology and/or interpersonal problems. Patterns of nonreciprocal, or inappropriate disclosure have been hypothesised to characterize individuals with different types of disorders and interpersonal difficulties including depression (e.g., Coyne, 1976a), loneliness (e.g., Solano, Batten, and Parish, 1982), neurosis (e.g., Chaikin, Derlega, Bayma, & Shaw, 1975), and social anxiety (e.g., Meleshko & Alden, 1993).

Interestingly, it appears that two almost completely distinct areas of research and literature have developed, including somewhat separate methodological traditions. The first area, which for the purpose of this paper I will call "interpersonal difficulties and self-disclosure", has examined the disclosure patterns of diverse populations including those characterized as anxious, lonely, neurotic, and socially anxious. The second area, which I will refer to as "depression and self-disclosure", has examined only the disclosure of depressed individuals. Typical, or perhaps more correctly, representative, of this distinction, would be a recent review chapter entitled "Psychopathology and Self-Disclosure" in which Carpenter (1987) does not cite or discuss a single one of the studies that have examined the disclosure of depressed individuals. When we examine the articles that
will be reviewed in this paper, we find that of the studies which examined the disclosure of depressed individuals, only the one by Gibbons (1987) cites a study (one by Cunningham & Strassberg, 1981) from the other area. Conversely, from the "interpersonal difficulties and self-disclosure" area, only the Meleshko and Alden (1993) study which examined the disclosure patterns of socially anxious individuals, cites a study which has examined the disclosure of depressives (a study by Jacobson & Anderson, 1982).

This distinction in the literature is surprising, because almost without fail the studies in both of these areas typically contain the qualification that their results must be viewed speculatively, as the relationship may be due some other third variable such as depression or anxiety. In addition, they almost routinely mention the need for studies which examine the specificity of disclosive behavior (e.g., Gibbons, 1987; Meleshko and Alden, 1993; Weary, 1988). Therefore, it seems that an integration of these two previously separate areas of research is not only necessary on conceptual grounds, but also long overdue. A necessary first step in the integration of any two areas of research, however, is an integration of their respective literatures. This paper will attempt to fulfill this function, but in order to achieve this goal, will review the literature separately along the distinctions that currently exist.

Interpersonal Difficulties and Self-Disclosure

A study by Chaikin et al. (1975) examined the relationship between neuroticism and disclosure reciprocity. Based on the results from a correlational study by Mayo (1968) of disclosure among hospitalized neurotics,
these investigators suggested that nonreciprocal disclosure patterns would be more common for neurotics than for normals. College men scoring high and low on the neuroticism dimension of the Maudsley Personality Inventory were selected as "neurotics" or "normals", respectively, and asked to participate in a study where they communicated by telephone with a confederate who made either a low or high intimacy disclosure. As predicted, the intimacy level of the confederate's disclosure interacted with neuroticism. Normal subjects reciprocated the intimacy of the confederate, disclosing more highly to the intimate than to the superficial confederate. Neurotic subjects, however, were unaffected by the confederate's intimacy as their disclosures were virtually the same in both conditions.

Cunningham and Strassberg (1981) had college men with either normal or neurotic MMPI profiles participate in a dyadic interaction via telephone with a confederate who made either high or low intimacy disclosures. They examined both the amount (temporal length of disclosure) and intimacy level of the subjects' disclosure. Their results showed that there was no difference between the groups in terms of the amount of disclosure. However, they did find an interaction between group membership and reciprocity of confederate disclosure such that normals made more intimate disclosures in response to high, as opposed to low, intimacy confederate disclosure, whereas neurotics were moderate in their disclosure in response to both the intimate and nonintimate confederate. However, a different pattern of results emerged from a study by Strassberg, Adelstein, and Chemers (1988). They had college men and women with either normal or neurotic MMPI profiles write self-descriptive essays. A content analysis revealed that there were no differences in intimacy between the essays of the two groups.
Chelune, Sultan, and Williams (1980) showed that for women college students, loneliness was significantly related to an unwillingness to self-disclose to others in hypothetical situations. Berg and Peplau (1982) also found that loneliness was associated with less reported willingness to disclose for women, but their results indicated that there was no relationship between loneliness and willingness to disclosure for men. Solano et al. (1982) paired lonely men and women with nonlonely partners and examined their disclosive behavior during a face to face interaction. Their results showed that lonely and nonlonely subjects do indeed differ in self-disclosure, as lonely subjects displayed higher levels of intimacy with same-sexed partners than with opposite-sexed partners, the reverse of the pattern found among nonlonely subjects.

Post, Wittmaier, and Radin (1978) examined the influence of trait and state anxiety on the self-disclosure of college men. The self-disclosure task had the subject provide written responses to four questions rated to demand moderate to high levels of intimacy; the measure of disclosure however, consisted of a content analysis of only one of the questions. These investigators assessed the intimacy of disclosure, the degree of positive-negative self-evaluation, and the amount of disclosure (total number of words written). The results showed that both high trait and high state anxious subjects wrote a significantly fewer number of words than nonanxious subjects. In addition, the subjects in the high state anxiety condition disclosed less intimately than did the other groups. There were no differences between the groups, however, on the measure of positive/negative self-evaluation.

Although shy and socially anxious individuals describe themselves as nondisclosive and are behaviorally inhibited during social interactions (e.g., Jones & Briggs, 1984; Snell, 1989), there is a relative paucity of empirical
data regarding their disclosive behavior in social situations. Meleshko and Alden (1988) examined self-disclosure among socially anxious and nonanxious women college students. The subjects participated in dyadic, face to face interactions, which included all four possible combinations of anxious and nonanxious subjects. There were no differences between the groups in regard to the intimacy level of the topics they chose, with both anxious and nonanxious subjects choosing relatively nonintimate topics. There was a difference in the amount of disclosure, however, as the nonanxious subjects disclosed for significantly longer periods of time than did the anxious subjects.

Meleshko and Alden (1993) examined patterns of self-disclosure in socially anxious and nonanxious women during a dyadic, face to face interaction with a confederate who disclosed either intimate or nonintimate information. They measured both the amount (length of time the subject disclosed) and the intimacy level of disclosure. Their results showed that nonanxious subjects exhibited a significantly greater amount of disclosure than did the anxious subjects. In addition, the socially anxious subjects did not reciprocate their partner's level of intimacy to the same extent as did the nonanxious subjects. Relative to nonanxious subjects, the anxious subjects were more likely to overdisclose to a nonintimate partner and underdisclose to an intimate one, thereby displaying a more moderated version of the pattern displayed by nonanxious subjects.

Stiles, Shuster, and Harrigan (1992) examined the disclosure of low, moderate, and high trait anxious subjects. Their paradigm did not include a social interaction, or the impending possibility of one, but rather a videotaped monologue by the subjects. Somewhat contradictory with the results of other studies (Meleshko & Alden, 1988; Meleshko & Alden, 1993; Post et.
al., 1978), their results showed that under conditions designed to induce anxiety, higher anxiety was related to a greater breadth of disclosure. There was no difference between the groups of subjects in terms of the amount of disclosure. The authors interpreted their results within a Fever model of disclosure (Stiles, 1987; Stiles et al., 1992) which postulates that psychologically distressed (e.g., anxious or depressed) individuals tend to disclose more.

To summarize, although deficiencies in self-disclosure are widely believed to characterize individuals with interpersonal difficulties, few studies have actually examined the disclosive behaviour of such individuals in face to face social encounters. Only the Solano et al. (1982), and Meleshko and Alden (1988; 1993) studies involved actual face to face interactions, situations which more closely resemble those real life encounters that maladjusted individuals find problematic. Another major factor which makes any interpretation of the results difficult relates to whether intimacy was manipulated as an independent variable (e.g., through confederate behavior), as in the Chaikin et al. (1975) study, or was uncontrolled, as in the Solano et al. (1982) study. However, it does appear that there are some relatively consistent differences which appear across studies. It seems that anxiety is related to a reduced amount, and a reduced or moderated (situationally inappropriate) intimacy (Meleshko and Alden, 1993; Post et al., 1978), although one study found that it was related to higher levels of disclosure (Stiles et al., 1992). It is unclear if neuroticism is related to unusual patterns of disclosure, as the one study which has examined the amount of disclosure exhibited by neurotics found that they did not differ from nonneurotics (Cunningham & Strassberg, 1981). The only study which examined content valence (degree of positive or negative self-evaluation), found no
differences between the written disclosure of anxious and nonanxious individuals (Post et al., 1978).

It appears that nonreciprocal, or inappropriate patterns of disclosure are displayed by individuals characterized as lonely, neurotic, and anxious. Although the exact pattern is unclear, it does appear that lonely individuals display different patterns of self-disclosure than do nonlonely individuals (Berg & Peplau, 1982; Chelune et al., 1980; Solano et al., 1982). Neurotic individuals seem to be relatively unaffected by their partners' level of intimacy as their disclosure tends to be quite similar whether they are responding to an intimate or a nonintimate partner (Chaikin et al., 1975; Cunningham & Strassberg, 1981). Anxious individuals, on the other hand, do respond differently to intimate and nonintimate partners, but their response is a moderated pattern of that displayed by nonanxious individuals as they tend to overdisclose to a nonintimate partner and underdisclose to an intimate one (Meleshko & Alden, 1993). Therefore, we can see that although the pattern of nonreciprocity displayed by neurotic and anxious individuals is somewhat similar, it does not seem to be identical. Although this may reflect methodological differences, it is also possible that different types of interpersonal problems are characterized by different patterns of self-disclosure. Further, this specificity may be both conceptually and clinically important.

Depression and Self-Disclosure

There has been increasing attention given to the social and interpersonal factors which may influence the development and expression of depressive
symptoms (e.g., Coates & Wortman, 1980; Coyne, 1976b; Hill, Weary, & Williams, 1986; Lewinsohn, 1974). Stimulated by the work of Coyne (1976a), a large number of studies in the last ten years or so have examined the behavior and reactions of individuals interacting with depressives in an attempt to gain a broader understanding of the interpersonal aspects and consequences of depression (see reviews by Gurtman, 1986; Marcus & Nardone, 1992).

Coyne (1976a) had college students engage in a telephone conversation with three groups of target individuals: a depressed patient (patients with Zung Self-Rating Depression Scale (SDS) > 55), a nondepressed patient, or a nonpatient control. The results indicated that the students were more anxious, depressed, and hostile following interactions with depressed patients than following interactions with nondepressed patients or normal controls. They were also more rejecting of the depressed patients. Strack and Coyne (1983) had pairs of women college students, depressed (BDI-SF [Short Form] > 6)/nondepressed, nondepressed/nondepressed, engage in a conversation. Their results indicated that subjects who interacted with a depressed partner were more depressed, anxious, and hostile, and were less willing to interact further with their partner.

In a replication of Coyne's (1976a) study, King and Heller (1984) had women subjects participate in a telephone conversation with either depressed psychiatric patients (SDS > 48), nondepressed patients, or nonpatients. Their results differed from Coyne's, however, as they indicated that subjects who spoke with a depressed patient were not more depressed, hostile, or anxious following the interaction, nor were they more rejecting of their partner. Gotlieb and Robinson (1982) had nondepressed women participate in a face to face dyadic interaction with either depressed (BDI > 8) or nondepressed women students. Their results showed that the subjects were not more depressed,
anxious, or hostile, following an interaction with depressed individuals, nor were they more rejecting of them. They did find, however, that subjects who interacted with a depressed target individual exhibited more negative verbal and nonverbal behaviours than subjects who interacted with a nondepressed individual.

McNeil, Arkowitz, and Pritchard (1987) had three groups of women subjects: depressed outpatients (BDI > 15), nondepressed outpatients, and nondepressed nonpatients, interact with community women subjects in a brief face-to-face dyadic interaction. The results indicated that after this brief first meeting type of situation, there was no difference between the partners of the three experimental groups in negative mood induction, social rejection, or negative evaluation. Dobson (1989) failed to find any rejection effects or negative mood induction when depressed women college students (BDI > 10) interacted with nondepressed women college students during a face-to-face interaction. Rosenblatt and Greenberg (1991) also failed to find any rejection effects or negative mood induction when nondepressed students had a brief face-to-face interaction with depressed students (BDI > 9).

Hammen and Peters (1978) evaluated the interpersonal consequences of depressed behavior by having college students enact either a depressed or nondepressed role during a mock telephone interview with a nondepressed peer. The affect and attitudes expressed by the depressed role players were characterized by sadness, pessimism, helplessness, and negative self-image, as compared to the optimism, positive self/other image, and competence portrayed in the nondepressed role. Their results showed that the depressed role aroused more feelings of depression in the listener that did the nondepressed role. In addition, subjects enacting the depressed role were more strongly rejected than those enacting the nondepressed role.
Howes and Hokanson (1979) examined the conversational responses of subjects who participated in a face to face interaction with a confederate enacting either a depressed, normal, or physically ill role. Their results indicated that subjects who interacted with a depressed confederate, as compared with subjects in the other two groups, were more rejecting of their partner and responded with higher rates of silence and directly negative comments and lower rates of overall verbal responses.

Boswell and Murray (1981) had subjects listen to tape recorded interviews with either hospitalized depressives, hospitalized schizophrenics, or normal hospital staff. However, their results did not support a specific reaction to depressives as they indicated that both depressed and schizophrenic patients aroused dysphoric mood and were rejected more than normals. Lynn and Bates (1985) had women subjects listen to an audiotape on which a confederate enacted either a nondepressed role or a depressed role characterized by the expression of negative attitudes on intimate topics. The subjects were more rejecting of the depressed confederates and saw them as being more maladjusted than the nondepressed confederates.

Although the results of these studies are viewed as providing consistent evidence that the responses of others to depressed individuals are negative and rejecting, they do not examine why depressives may incur these negative interpersonal responses. It has been suggested that there are two broad expressive features of depressive behavior, affect and disclosure, which form the basis of depressive rejection (Gurtman, 1987). The first factor, depressive affect, refers to nonverbal displays of either sad or flat emotion, and has been hypothesized as being a part of the clinical picture of depression (Beck, 1967; Depue & Monroe, 1978). The second factor, depressive disclosure, is one of the verbal components of depression and consists of
statements about the self that the depressive makes to others. According to Beck (1967), the verbalizations offered to others may express the depressive's negative cognitions about self, world, and future, and contain specific negative themes involving self-blame, self-disparagement, negativism, hopelessness, and helplessness.

In an attempt to specify the possible factors which lead to depressives being rejected and devalued by others, Gurtman (1987) examined these two features of depressive behavior, affective displays and verbal disclosures. He employed a design that allowed both their independent and interactive contributions to be examined. College men and women were shown videotaped segments which depicted happy, sad, or flat affect. Subjects in two conditions listened to audio tracks which presented either depressive or nondepressive disclosures, whereas the third group watched the videotapes without any audio accompaniment. The depressive disclosures were marked by self-devaluation, hopelessness, internal blame, and overgeneralization, whereas the nondepressive disclosures instead reflected adaptive coping and a positive attitude. Both types of disclosures were delivered in a neutral tone of voice.

The results indicated that it was the nature of the disclosure which proved especially influential as a factor in subjects' evaluations. In conditions where depressive content was embedded in the disclosure, the person was rejected, devalued, regarded as maladjusted, and perceived as functionally impaired. These reactions were attributable specifically to the depressive content rather than to the person's affect. Displays of depressive affect also elicited a variety of negative responses, but these differences emerged only in conditions where disclosures were not heard. Whenever depressed or nondepressed disclosures were paired with affective displays, the differences
between affects were markedly reduced and, indeed, when subjects were exposed to an incongruence between affect and disclosure (i.e., happy affect paired with a depressive disclosure, or sad affect with a nondepressive disclosure), evaluations always followed the disclosure rather than the affect. When one considers the interactional nature of interpersonal situations, in conjunction with the results of this study, it strongly suggests that it is the nature of the depressed individuals' disclosure which may play the more important role in the negative reactions to them by others.

It is often accepted, to a great extent on the basis of some of these studies, that depressives evoke a variety of negative interpersonal and emotional responses in others. In his review of this literature, Gurtman (1986) suggests that these findings are largely consistent across both studies and methodologies. However, when we reexamine these studies on the basis of methodological similarity, the results are not as consistent, nor as suggestive, as they first appear. All of the studies which have had confederates enact a depressed role have shown that the depressed role evokes a variety of negative responses including rejection and devaluation (Lynn & Bates, 1985), negative verbal and nonverbal behaviours (Howes & Hokanson, 1979), and negative mood states (Hammen & Peters, 1978). When we examine the studies which have used depressed patients or individuals, however, the results are far less consistent and conclusive. Although Coyne (1976) and Strack and Coyne (1983) found that depressed individuals do incur negative interpersonal consequences, the results from other studies do not show a negative reaction by others specific to depressives (e.g., Boswell & Murray, 1981; Dobson, 1989; Gotlieb & Robinson, 1982; King & Haller, 1984; McNeil et. al., 1987; Rosenblatt & Greenberg, 1991). Given the bias of most journals to
publish only positive results, one has to wonder if the situation may be even more inconclusive than it appears.

There is a problem with this area of research when we consider how important the role of disclosure is in one's evaluation by others (Gurtman, 1987) in conjunction with the fact that only those studies which have had a confederate enact a depressed role show a consistent pattern of results. What type of disclosure does a depressed individual make in an interpersonal situation? Given the extensive number of studies that have just been reviewed which examine the reaction of others to depressed individuals, some of which have involved scripted depressive disclosures, this may at first glance appear to beg the question. However, it is in fact the real question which must be addressed. A review of the literature indicated that there are 5 citations which are used to support the position that the disclosures of depressed individuals are indeed different and distinctive. These citations include Beck (1967), Blumberg and Hokanson (1983), Coyne, (1976a), Hokanson, Sacco, Blumberg, and Landrum, (1980), and Jacobson and Anderson (1982). When closely examined, however, these widely cited studies actually present little or no empirical data to support the position that the disclosures of depressed individuals actually differ from those of nondepressed individuals in nontherapeutic interpersonal situations.

Although Beck (1967) does discuss at length how the verbalizations and disclosures of depressed individuals differ from those of nondepressed individuals, his conclusions are based on his observations in therapeutic settings. He provides no empirical data to suggest that this is the pattern, or type of disclosure that depressives may exhibit in nontherapeutic interpersonal situations. In the most widely cited of these studies, Coyne (1976a) had college students engage in a telephone conversation with three
groups of target individuals: a depressed patient, a nondepressed patient, or a normal control. The depressed patients induced negative affect in those with whom they interacted, and further, they were also negatively evaluated and rejected by them. Coyne analyzed and scored the content of the target individual's disclosure for activity, other-self ratio, approval responses, hope statements, and genuineness. However, none of these 5 measures differentiated between the disclosures of the three groups.

This was somewhat surprising to Coyne as the subjects' mood induction and social perception scores indicated that they clearly perceived the depressed individuals differently, suggesting that there were obvious differences in verbal behavior and/or content. Although the study failed to uncover exactly what led to the mood induction in the subjects, Coyne did speculate about what he felt may have been responsible for the subjects' reactions. Based on his post hoc observation that the depressed individuals seemed to show a willingness to discuss a variety of intensely personal matters such as death, marital infidelities, hysterectomies, family strife, etc, Coyne suggested that the negative responses depressives induced in respondents might have been as much attributable to their nonreciprocal disclosure of intimate problems as to their depressive content per se.

Coyne (1976a) felt that his measures were somewhat discrete and failed to capture these differences: "...it appears that simply counting 'hm-hmms' and timing activity do not capture these essential differences." (pg 190). Further, he suggested that a measure of the appropriateness of self-disclosure should be used to examine whether depressed individuals exhibit nonreciprocal, high disclosure of intimate problems. Interestingly, this study is widely cited as support for the position that the disclosures of depressed individuals differ from those of nondepressed individuals, when in fact, the
study offered absolutely no data to support this position. Thus, we can see that comments such as one made by Wagner (1988), for example, are clearly problematic, "That such disclosure (deeply intimate) is characteristic of depressives was first found by Coyne (1976)" (pg 97).

Youngren and Lewinsohn (1980) had depressed (MMPI D-scale > 70; D-scale > all other scales; and interviewer ratings) and nondepressed men and women patients participate in both group and dyadic face to face interactions. They utilized 7 measures of verbal behavior and 4 measures of nonverbal behavior, but found no deficits uniquely associated with depression. Across both group and dyadic interactions, the verbal and nonverbal behavior of depressives was virtually indistinguishable from that of the nondepressives. Gotlieb and Robinson (1982) had nondepressed women participate in face to face dyadic interactions with either depressed (BDI > 9) or nondepressed women students. The content of the subjects' disclosure was analyzed and measured along six dimensions, but the results indicated only that the depressed individuals made fewer statements of direct support to their partners and talked about more negative content in their interactions.

Hokanson et al. (1980) had three groups of men and women college students, depressed (BDI > 10; MMPI D-scale > 70; all other MMPI scales < 70), nondepressed/other psychological problems, and normal, interact with a same-sex normal person in a modified Prisoner's Dilemma procedure. There was no face to face or verbal contact, but the dyads were given opportunities to exchange written communications by filling in and exchanging a communications checklist with their partner. The checklist consisted of 24 one-sentence messages that fall into six categories which represent expressions of extrapunitiveness, cooperativeness/friendliness, ingratiatiom, self-devaluation/sadness, self-devaluation/blame other, and helplessness. Their
results indicated that depressed individuals exchanged more written communications which expressed self-devaluation/sadness and helplessness, but that there were no differences between the groups on any of the other measures.

In another study which used a modified Prisoner's Dilemma (Blumberg & Hokanson, 1983) depressed (BDI > 13 on screening and BDI > 9 at lab) and nondepressed women college students interacted with a confederate who enacted either a critical/competitive, helpless/dependent, or supportive/cooperative role. The dyads exchanged both written (communication checklist) and verbal communications during a face to face problem solving task. The content of the subjects' verbal communication was analyzed and measured along eight dimensions, but only two measures distinguished between the groups: depressives emitted reduced amounts of neutral talk and greater amounts of general negative content. They also expressed more negative self-references, but only in response to the helpless/dependent confederate role. The results showed that the only differences in the written communications were that the depressed subjects expressed more self-devaluation/sadness and helplessness.

There has been one study which has attempted to address the specificity of patterns of disclosure, and in doing so has bridged what I have termed the "interpersonal difficulties" and "depression" areas of self-disclosure research. Jacobson and Anderson (1982) had depressed (BDI > 12 on screening, and BDI > 12 at lab) and socially anxious men and women college students participate in a face to face "waiting room" interaction with a confederate. They measured the content of the subjects' disclosure along 9 relatively discrete, molecular dimensions. Their results revealed a significant difference for only one of their nine measures of disclosure: the depressed subjects delivered a significantly higher rate of negative self-statements
than did the nondepressed subjects. There were no differences between the disclosures of the socially anxious and nonanxious subjects. In discussing the differences between the disclosures of depressed and nondepressed subjects the authors state, that, "In fact, the similarities were considerably more striking than the differences." (Jacobson & Anderson, 1982, pg 277).

Therefore, although widely cited for this purpose, this study should not be viewed as providing support for unique patterns of disclosure among depressives.

In a recent study, Gibbons (1987) elicited written self-disclosures on either a positive or negative topic from depressed men and women college (BDI > 11) students who believed that the information would be later exchanged with a same-sex partner. They examined the amount (number of words written), intimacy, and affect of the written statements. There were no differences between the groups in the amount of disclosure. However, the statements of the depressed subjects were rated as significantly more intimate and containing more negative affect, but only in the condition where they were instructed to disclose on a negative topic. There were no differences between the depressed and nondepressed groups when they disclosed on a positive topic.

McNeil et. al. (1987) had three groups of women subjects: depressed outpatients (BDI > 15), nondepressed outpatients, and nondepressed nonpatients, interact with community women subjects in a brief face-to-face dyadic interaction. They had three measures of verbal behavior: support statements, approval statements, and depressive statements. There were also three measures of nonverbal behavior: smiles, head nods, and gazing time. Their results indicated that there were no differences between the three experimental groups on any of the verbal or nonverbal measures.
To summarize, although depressed individuals are widely believed to display very unusual and striking patterns of overly intimate, inappropriate disclosure, we can see that there is virtually no empirical support for this position. The only possible explanation seems to be that somehow this belief took hold over the years in the absence of any empirical support. That this assumed difference in self-disclosure between depressed and nondepressed individuals has not been established, is clearly problematic for the extensive body of research which has gone on to examine the effects that the assumed inappropriate disclosures of depressives have on others, especially those studies which had a confederate enact a depressed role. How can you provide "depressed scripts" for your confederates when you do not know what pattern of self-disclosure a depressed individual exhibits?

When we examine and attempt to summarize the studies which have examined the disclosures of depressed and nondepressed individuals, perhaps most striking is not what differences have been found, but what similarities there are. There do, however, appear to be a few common findings across studies, although they are somewhat difficult to interpret because of methodological differences, for example, whether or not an actual face-to-face interaction occurred. Although examining somewhat different subsets of what might be broadly considered affective tone, or valence, it seems that there may be a general negative tone, or quality, to the content of depressed individuals' disclosures. Their disclosures have been found to contain more negative content (Blumberg & Hokanson, 1983; Gotlieb & Robinson, 1982), negative self-statements (Jacobson & Anderson, 1982), and negative affect (Gibbons, 1987). Unfortunately, the Gibbons (1987) study only involved an analysis of written statements, making it somewhat difficult to interpret and generalize. In addition, the negatively valanced content was found only in the condition
where the subjects were instructed to disclose on a negative topic. Interestingly, although depressed individuals are widely assumed to be excessively intimate in their disclosure, only the Gibbons (1987) study has actually examined intimacy of disclosure. It found that the depressed subjects were more intimate in their disclosure, but once again, only in the negative topic condition. Therefore, based on existing research, we simply cannot conclude that depressed individuals are excessively intimate in their disclosure. The one study which has examined the amount of disclosure found no differences between depressed and nondepressed groups (Gibbons, 1987).

The difficulties here appear to be best characterized as a paucity of data regarding the content and quality of the disclosure of depressed individuals, rather than negative results, per se. To a great extent, this research has simply failed to examine the qualitative aspects of the disclosure of depressed individuals in ongoing social interactions. Rather, they have focused on discrete, molecular types of behaviours that have provided little, if any, information. It is widely accepted in both main stream self-disclosure research (e.g., Chelune, 1979), and "interpersonal difficulties and self-disclosure" research (e.g., Carpenter, 1987), that the most important differences in self-disclosure are qualitative ones. That the methodology being utilized was not appropriate to the type of data being sought was recognized quite early on by virtually all the individuals doing the research in this area (e.g., Coyne, 1976a; Hokanson et al., 1980; Jacobson & Anderson, 1982; Youngren & Lewinsohn, 1980). Yet, it appears that in the intervening years little has been done to address this issue.
The Present Study

As stated in the introduction, one of the purposes of this study was to integrate two diverse areas of research, referred to as the "interpersonal difficulties" and "depression" areas of self-disclosure. With the exception of the Jacobson and Anderson (1982) study, none of the studies reviewed in this paper have examined patterns of self-disclosure in more than one dysfunctional group at a time. This is not surprising given the difficulty of finding sufficient numbers of subjects to complete a multilevel factorial design when variables are moderately correlated. An indication of the problems inherent in attempting this type of research was provided by Gotlieb and Robinson (1982), who acknowledged that although their study was initially designed to incorporate both anxiety and depression, they found the design impossible to implement, and therefore continued with level of depression as the sole factor. Although not surprising, this practice is clearly problematic in light of recent conceptualizations of anxiety and depression (e.g., Clark & Watson, 1991; Katon & Roy-Byrne, 1991; Kendall & Watson, 1989).

After an extensive review of the literature, Clark and Watson (1991) concluded that anxiety and depression could be reliably and validly assessed and further, that they could be differentiated on the basis of factors specific to each syndrome. In addition, they proposed that a new diagnostic category of mixed anxiety-depression be created. They suggested that a tripartite structure consisting of general distress, physiological hyperarousal, and anhedonia, would allow the three disorders of anxiety, depression, and mixed anxiety-depression, to be reliably differentiated and diagnosed. Although most of this research has focused on conceptual and measurement issues, Watson and Kendall (1989a & 1989b) suggested that there is
clinical, psychometric, cognitive, and biological evidence to support this conceptualization. Therefore, it is important that researchers now attempt to determine whether behavioral aspects are consistent with the concepts of this model.

Arguably, one of the most important interpersonal behaviours is self-disclosure. It has been suggested that a single pattern of disclosure for maladjusted groups may not exist, but rather, that different types of maladjustment may be characterized by different patterns of self-disclosure (e.g., Carpenter, 1987; Meleshko & Alden, 1993). Furthermore, Meleshko and Alden (1993) suggest that this specificity may be both conceptually and clinically important. The present study examined patterns of self-disclosure in subjects selected on measures of social anxiety and depression and in the process, attempted to methodologically and conceptually integrate these previously diverse areas of research.

Most studies have examined disclosure as a unidimensional construct. Disclosure has been characterized in terms of "amount and type" at its most basic level. To address the issue of specificity, however, requires that disclosure be examined as a multidimensional construct that varies along several qualitative parameters. Cozby (1973) proposed that the basic dimensions of self-disclosure are the breadth or amount of information disclosed, depth or intimacy of this information, and the duration of time spent in disclosure. This was expanded by Chelune (1979), who suggested that as an interpersonal behavior, self-disclosure will vary, at a minimum, along the parameters of: (1) amount of information (2) intimacy of the information (3) duration or rate of disclosure (4) affective tone of the information (5) disclosure flexibility.
To the best of the author's knowledge, no single study has attempted to examine all of these dimensions simultaneously, and this was the goal of the current study. Although amount of disclosure has typically been operationalized as the number of words, and duration of disclosure as the time spent in disclosure, the similarity between these two measures would seem to make them redundant. Therefore, the present study measured the amount of disclosure along a temporal dimension. The study also examined the intimacy of the subjects' disclosure in an absolute sense and in addition, utilized an index of reciprocity to measure the extent to which subjects' disclosures matched those of their partners. Previous studies have distinguished between affect, as it refers to manner of presentation, and the affective tone of the information. The majority of studies have examined the affective tone, or valence of the disclosure content. This emphasis tends to be supported by studies such as the one by Gurtman (1987) which indicates the primary importance of disclosure content. Therefore, the present study examined the positive or negative valence of the content of the subjects' disclosure.

Meleshko and Alden (1993) recommended that studies of disclosure should involve actual face to face interactions, situations which more closely resemble real life encounters than do videotaped or written information exchange situations. Therefore, the present study employed a dyadic, face-to-face interaction as the experimental paradigm. This study investigated the impact of the interaction on both the subjects and the confederates. Consistent with previous research on depression and self-disclosure, the current study employed an attraction questionnaire to measure social acceptance of one's partner, which was completed by both the subjects and the confederates.
Previous studies also routinely measure affective response to determine an individual's emotional reaction to his or her partner and their disclosure. These studies have typically used the Multiple Adjective Checklist (MACL: Zuckerman & Lubin, 1965; MACL-R: Zuckerman & Lubin, 1985) to determine how depressed, anxious, and hostile individuals felt following an interaction. However, recent factor analytic studies suggest that the MACL and MACL-R may not be valid measures of these discrete emotional categories (e.g., Clark & Watson, 1991; Russell, Weiss, & Mendelsohn, 1989), but instead are confounding two orthogonal dimensions of emotion identified by others. Therefore, the current study used the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS contains both positive and negative affect scales and Watson et al. (1988) report extensive data to support the reliability and validity of these scales. Positive affect reflects the extent to which a person feels enthusiastic, active, and alert. High positive affect reflects a state of high energy, concentration, and pleasurable engagement, whereas low positive affect is characterized by sadness and lethargy. In contrast, negative affect is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness, with low negative affect being a state of calmness and serenity.

This study also examined Watson and Clark's (1991) tripartite model within the context of an interpersonal interaction. Clark and Watson suggest that there is a general distress factor, which they term "negative affect" that is common to anxiety, depression, and the proposed mixed anxiety-depression disorder. In addition to this nonspecific factor, they propose that there are two specific factors, physiological hyperarousal and anhedonia (positive affect) that distinguish these conditions. Anxious individuals are said to be
characterized by physiological hyperarousal, while depressed individuals are not. On the other hand, depressed individuals are characterized by low levels of positive affect, while anxious individuals are not. The proposed mixed anxiety-depression disorder is characterized by high levels of negative affect and physiological hyperarousal, and low levels of positive affect.

Measures of the subjects' positive affect, negative affect, and self-reported physiological arousal, were obtained prior to, and after the interaction. The measures taken prior to the interaction were examined for between group differences and also served as a baseline for the post-interaction measures. A number of studies have indicated that there is a relationship between social activity and affect (e.g., Clark & Watson, 1988; McIntyre, Watson & Cunningham, 1990; Watson, 1988), but they have not examined the direction of influence. One recent study suggests that social activity, including dyadic interactions, results in increased positive affect, but no difference in negative affect (McIntyre, Watson, Clark, & Cross, 1991). However, we expected to see different patterns of changes for the socially anxious, depressed, and mixed groups in this study, changes that would be consistent with the nature of their disorder as conceptualized within the tripartite model of anxiety and depression.

Hypotheses

1. **Amount, Intimacy, Valence, and Flexibility of the Subjects' Disclosure**
   a) **Amount:** Previous research suggested that both a main effect for social anxiety and a main effect for intimacy might occur for the amount of the subjects' disclosures. I hypothesized that the anxious subjects would
exhibit reduced amounts of disclosure but that there would be no
difference in the amount of disclosure by depressed-mood subjects.
b) Intimacy: One of the most robust findings in the psychological
literature relates to the phenomenon of disclosure reciprocity, the ten­
dency of individuals to match the intimacy level of a confederate's
disclosure. Thus, it was expected that all of the subjects would be more
intimate in the high intimacy condition than in the nonintimate one,
leading to a main effect for intimacy. It was also hypothesized that
there would be interactions for both anxiety and depression. The anxious
subjects were expected to exhibit moderate levels of intimacy and to be
more intimate than the nonanxious subjects in the nonintimate condition
but less intimate than nonanxious subjects in the high intimacy one. The
depressed-mood subjects, on the other hand, were expected to be more
intimate than nondepressed-mood subjects in both conditions.
c) Valence: It was hypothesized that the content of the depressed-mood
subjects disclosure would be negatively valanced but it was unclear if
this would occur in both intimacy conditions. It was hypothesized that
the disclosure of the socially anxious subjects would be similar in its
valence to that of the nonanxious subjects and that there would be no main
or interaction effects for social anxiety.
d) Flexibility: Although the measures of intimacy give us some idea about
the absolute level of the intimacy of the subjects' disclosure, they do
not provide information on the extent to which the subjects moderated
their disclosure to match their partners' level of intimacy. Hence, this
study used reciprocity indices to measure flexibility of disclosure.
It was hypothesized that the socially anxious subjects would reciprocate
the disclosure of their partners to a lesser extent than would the
nonanxious subjects, perhaps even more so in the intimate condition. It was also hypothesized that there would be a main effect for depressed-mood. It was expected that the depressed-mood subjects would be overly intimate, thus also reciprocating the disclosure of their partners to a lesser extent. Although this pattern of results would indicate that both depressed-mood and anxious subjects have difficulty modulating their disclosure, the nature of the difference was expected to have very different interpersonal implications for each group.

2. Measures of Positive Affect, Negative Affect, and Physiological Arousal
   a) Pre-interaction: It was hypothesized that the anxious subjects would report higher levels of physiological arousal than the nonanxious subjects. It was also hypothesized that both anxious and depressed-mood subjects would exhibit higher levels of negative affect, but that there would be no differences between them. Further, it was hypothesized that there would be a main effect for depressed-mood on the measure of positive affect as the depressed-mood subjects were expected to exhibit greater anhedonia (lower levels of positive affect) than the nondepressed-mood subjects.

   Post-interaction: Consistent with previous research, it was hypothesized that the nonanxious/nondepressed-mood subjects would display increased levels of positive affect but maintain their low levels of both negative affect and arousal. Based on their reports of social interactions as somewhat negative experiences, it was hypothesized that the anxious subjects would report increases in both negative affect and physiological arousal. It was unclear, however, what would happen to their levels of positive affect, thus, no
predictions were made for this measure. The previous research indicates that depressed subjects may evidence a desire for affiliation, but also suggests that they may desire to avoid future demands (e.g., interactions). Therefore, no predictions were made for the depressed-mood subjects on change in affect and arousal.

3. Measures of Social Acceptance and the Confederates' Ratings of Affect

a) Social Acceptance: Previous research suggests that the "liking effect", or the tendency for subjects to evaluate a confederate who discloses in an intimate fashion more positively than one who discloses in a non-intimate fashion, is very robust. As a result, it was hypothesized that there would be a main effect for intimacy on the subjects' rating of their acceptance of the confederate. It was expected that all of the subjects would perceive the highly intimate confederates more positively, and thus, be more willing to interact with them in the future. It was felt that socially anxious subjects, who did not reciprocate disclosure, would likely be rejected by the confederates. Because recent research suggests that depressed individuals are not rejected by others during first meeting/acquaintance interactions, it was hypothesized that the depressed-mood subjects would not differ from nondepressed-mood subjects on measures of partner acceptance.

b) Confederates' positive and negative affect: Although results of studies on negative mood induction in the partners of depressed individuals are inconsistent, it is beginning to appear that depressed individuals might not induce negative mood in others during first meeting/acquaintance interactions. Therefore, it was predicted that the confederates would exhibit the same levels of positive and
negative affect with depressed-mood subjects as with nondepressed-mood subjects. There is little previous research which examines the effect that nonanxious individuals have on the mood of others. However, since confederates were expected to reject the socially anxious subjects it was predicted that the confederates would also experience more negative affect after interacting with anxious subjects than with nonanxious subjects.
Method

Design Overview and Subject Selection

Design Overview: In this study, subjects participated in a dyadic interaction in which they alternated with a woman confederate in disclosing information. Four groups of subjects, representing all combinations of social anxiety and depressed-mood, participated in the study. Subjects engaged in a dyadic interaction with an experimental confederate who disclosed in either an intimate or a nonintimate manner. Thus, the study utilized a 2 (Social Anxiety) by 2 (Depressed-mood) by 2 (Level of Confederate Disclosure) research design. Measures were taken of the amount, intimacy, valence, and reciprocity of the subjects' disclosures, and of their affect and physiological arousal before and after the task. Subjects and confederates completed ratings of their social acceptance of their conversational partner, and the confederates also completed ratings of their affect subsequent to the interaction.

Selection Measures: A widely used measure of social anxiety, the SAD consists of 28 true-false items designed to measure social avoidance and distress. Scores range from 0 to 28 with higher scores reflecting a greater degree of social avoidance and distress. Watson and Friend (1969) reported the following data in support of the reliability and homogeneity of the SAD: (1) mean point-biserial item-total correlation of .77 (2) KR-20 of .94 (3) one-month test-retest reliability of .68. A one-month test-retest correlation of .86 was obtained by independent investigators (Girodo, Dotzenroth, & Stein, 1981).

The BDI is the most widely used measure of depression not only for assessing the intensity of depression in psychiatrically diagnosed patients, but for research purposes as well. As of 1988 (Steer & Beck), it had been used in over 1,500 different research studies. The BDI consists of 21
symptoms and attitudes that can be rated from 0 to 3 in intensity. It is scored by summing the ratings for each of the 21 items, yielding a range of 0 to 63. The Center for Cognitive Therapy at the University of Pennsylvania's Medical School (Steer & Beck, 1988) suggests the following cutoff-score guidelines for using the BDI: (a) none or minimal depression, <10. (b) mild to moderate depression, 11 to 17. (c) moderate depression, 18-29. (d) severe depression, 30-63.

Those with SAD scores ≤ 5 were classified as potential nonanxious subjects, while subjects with SAD scores ≥ 11 were classified as potential socially anxious subjects. Subjects with BDI scores ≤ 6 were classified as potential nondepressed-mood subjects, while those with BDI scores ≥ 12 were classified as potential depressed-mood subjects. These subjects are referred to as "depressed-mood" rather than "depressed" in the current study as there was no formal diagnostic interview conducted which would entail the use of a diagnostic category such as depression.

Due to the potentially transient nature of depressive symptomatology and mood, the BDI was readministered to all of the subjects when they appeared for the experimental session to ensure that they remained in the appropriate category. Thus, nondepressed-mood subjects were defined as those who scored below 6 on both administrations of the BDI; depressed-mood subjects were those that scored above 12 on both administrations. There were 3 nondepressed-mood subjects and 16 depressed-mood subjects who obtained scores on the second BDI which were outside of the established ranges; none of these subjects were used in the study.

Selection Procedure: Women students (N=1,491) in introductory psychology classes at the University of British Columbia completed the Social Avoidance and Distress Scale (SAD; Watson & Friend, 1969), and the Beck Depression
Inventory (BDI; Beck & Steer, 1987) as part of a larger questionnaire package. The 160 volunteer subjects, who received partial course credit for their participation, were later contacted by telephone and a mutually convenient time was arranged for them to participate in an experimental session. There were no differences between the groups of subjects in terms of their rate of refusal to participate in the study when contacted by telephone. All subjects were randomly assigned to the high or low confederate intimacy disclosure experimental conditions.

There were an equal number of subjects (N=20) assigned to each of the eight cells created by the 2 (social anxiety) by 2 (depressed-mood) by 2 (confederate intimacy) research design. In terms of the initial subject pool (N=1491) there were differences in the frequencies of the four types of subjects; nonanxious/nondepressed-mood, anxious, depressed-mood, and anxious/depressed-mood. The nonanxious/nondepressed-mood subjects comprised 21.8% (N=326) of this sample, the anxious 7.8% (N=117), the depressed-mood 8.7% (N=129), and the anxious/depressed-mood 11.4% (N=170). The other 50.3% (N=749) of the subjects did not meet the selection criteria for any of the four groups.

Subjects: The nonanxious subjects were between 17 and 26 years of age (Mean=18.96), and had SAD scores 0 ≤ 5 (Mean=3.12). The socially anxious subjects were between 17 and 27 years of age (Mean=19.40) and had SAD scores 11 ≤ 24 (Mean=16.20). The nondepressed-mood subjects were between 17 and 23 years of age (Mean=19.15), and had BDI scores 0 ≤ 6 (Mean=3.69). The depressed-mood subjects were between 17 and 27 years of age (Mean=19.21) and had BDI scores 12 ≤ 38 (Mean=19.50). On the second administration of the BDI the nondepressed-mood subjects had BDI scores 0 ≤ 6 (Mean=2.89) and the depressed-mood subjects had scores 12 ≤ 36 (Mean=18.02).
Procedure

When the subject arrived for the experiment, she was greeted by the experimenter and seated so that she would face a woman confederate across a small coffee table. To enhance the deception, the confederate arrived three minutes after the subject was scheduled to be there and apologized for being late, stating that her class had been across campus. On those occasions when the subject was more than 3 minutes late, the confederate entered the room and was already seated when the subject arrived. Every attempt was made to make the experimental room as comfortable and naturalistic as possible.

The subject and confederate were given clipboards containing a subject consent form, BDI, PANAS, and physiological arousal scale. After completing these forms, they were given a set of instructions and a topic list. The experimenter read through the instructions (Appendix 1) with the dyad. The subjects were presented with the rationale that the experiment was a study of different conversational strategies employed by people in first-meeting situations. They were told that the study would entail them having a short, structured interaction with their partner, who was presented as a fellow subject. The subjects were instructed to choose a topic from the provided topic list, write a number beside the topic indicating which disclosure it was (i.e. first, second, etc), and then disclose on that topic to their partner. They were told to then listen while their partner chose a topic and talked about it. They were instructed to alternate back and forth until both of them had chosen, and disclosed on, 4 topics. It was stressed that they were to listen, and not ask questions, when their partner was speaking. The subjects were told that time was not an issue and that when they had said all they had to say, that was fine. In the interest of maintaining temporal scheduling
constraints, however, it was mentioned that on the "upper end", they should try to limit any given disclosure to 3 or 4 minutes.

It was arranged so that the confederate would always self-disclose first by using pre-assigned subject numbers. This was accomplished by giving the confederate the high subject identification number in a "high number starts first" arrangement. The subjects were told that the male experimenter would be behind a one-way mirror in order to monitor the conversation. At this point, the experimenter asked if there were any questions. To enhance the deception, the confederate asked a question relating to topic selection. After answering this question, and any the subject asked, the experimenter told them to turn to the topic list. They were told to take their time and examine the topic list while the experimenter left the room and went to the observation gallery. After an appropriate period of time to "examine" the topics, the confederate began her first disclosure.

Confederates and Observers: The experiment utilized three women confederates, each of whom interacted with approximately the same number of subjects across conditions. There were also four observers. The observer was seated behind a one-way mirror, out of the subjects' sight. The experimental room was equipped with a sound system which allowed the observers to listen to the interaction. Both the confederates and observers were blind to the hypotheses and experimental design.

During the interaction, both the observer and the confederate (surreptitiously, while she pretended to number her next topic choice) rated each of the subject's disclosures for intimacy and valence.

Discussion Topics and Manipulation of Confederate Intimacy: The topic list (Appendix 2) contained 19 items which had been previously rated for intimacy and was comprised of an approximately equal number of low, medium, and high
intimacy topics (Jourard, 1971; Appendix 12). In the low intimacy condition, the confederates disclosed on uniformly non-intimate topics (topics 9, 16, 11, 17: Mean Jourard intimacy=1.295; Mean Rated intimacy=1.863). They discussed relatively superficial issues and revealed little, if anything, of a personal or emotional nature (Appendixes 13, 14, 15, 16). In the high intimacy condition, the confederates began with a medium intimacy topic and proceeded to disclose on increasingly more intimate ones (topics 7, 5, 10, 3: Mean Jourard intimacy = 2.857; Mean Rated intimacy=5.650). The information they revealed was private, personal, and emotional in nature (Appendixes 17, 18, 19, 20).

Confederate Disclosures: The confederates' disclosures were scripted so that the nature and content of their disclosures would be the same for all the subjects within a given intimacy condition. The scripts were slightly modified versions of those used in a study by Meleshko and Alden (1993). That study found that although the high intimacy and low intimacy scripts were clearly perceived as differing in intimacy, both sets of scripts were rated as appropriate and positive.

The nonintimate disclosures ranged between 209 and 237 words (Mean=224) and took an average of 85.3 seconds per disclosure to deliver. The highly intimate disclosures ranged between 196 and 261 words (Mean=225.5) and took an average of 84.4 seconds each to deliver. Checklists were developed to determine whether subjects within each intimacy condition were presented with substantially the same material, or content, by the confederates. The checklists summarized major content areas and consisted of 15 items for each disclosure (Appendixes 21 and 22). As the confederate spoke, the observer placed a check mark beside each content item the confederate mentioned, or left blank those that they missed.
The three women who served as confederates practised extensively until they were able to provide natural, verbatim accounts of the four high intimacy and four low intimacy disclosures. The confederates were also trained in terms of behavioral and verbal response issues. They were to sit back in their chair, maintain good eye contact, and listen attentively while the subject spoke. Ideally, they were to maintain an attentive, but emotionally neutral facial expression. The confederates were to be careful, however, that their facial expression matched the nature of the subject's disclosures when deemed necessary (i.e. if the subject made a joke, they would smile). They were not to comment or speak in response to the subject's disclosure unless it was absolutely unavoidable. On those occasions, they were to try and use a non-committal type of expression (i.e. un huh, umm, etc.)

Postdisclosure Impressions and Debriefing: After the completion of the interaction, the experimenter re-entered the room and gave both the subject and the confederate the postdisclosure questionnaires. At this point, ostensibly so that their ratings of each other would be confidential, the confederate was taken to another room. This was accomplished by saying that the person who was "lucky enough to speak first, is also lucky enough to be the one to move". The confederate asked if she should take her books and coat with her and was told that she should, as it would be likely she and her partner would finish the questionnaires at different times.

After the subject completed the postdisclosure questionnaires, the experimenter conducted a structured, funnel type debriefing designed to probe for subject suspicion. There were five subjects who voiced suspicions about their partner and they were replaced with other subjects. Following the debriefing, the subjects were informed of the nature of the experiment, asked
to maintain confidentiality, given their experimental participation credit slips, thanked for participating, and dismissed.

**Pilot Study**: A preliminary study (n=21) was conducted. This pilot study served three major purposes. First, although the confederates extensively practised their disclosures, this allowed them to "fine tune" their presentation. It also allowed the experimenter to observe any behavioral differences between the confederates and make appropriate adjustments. Second, an examination of the data provided by the manipulation check determined that the experimental manipulation was successful. Third, the confederates' and observers' ratings of the subjects' disclosures for intimacy and valence were examined. These ratings were discussed by the research personnel and slight adjustments in utilizing the scales were made until it was felt that interrater agreement was acceptable.

**Dependent Variables**

There were 3 major categories of dependent measures: 1) Disclosure, 2) Affect and physiological arousal 3) Social Acceptance.

1. Disclosure

There were seven measures of the subjects' disclosure. These included measures of a) Amount (2 measures), b) Intimacy (2 measures), c) Content valence, and d) Flexibility (2 measures).

a) **Amount**: There were two measures of the amount of the subjects' disclosure. I. **Duration**: The experimenter used a stopwatch to measure the duration (in seconds) of each of the subject's disclosures. This measure was the average of each subject's four disclosures with a level of accuracy of one-tenth of a second.
II. Rate of Speech: Although in most cases duration would seem to provide an accurate measure of the amount of disclosure, it was decided to include a second measure in the current study as it was felt that the subject selection variables had the potential to influence overall subject verbosity. The experimenter rated each subjects rate of speech on a 5-point verbally anchored Likert scale where numbers higher than 3 indicated a faster than normal rate of speech, and numbers lower than 3 a slower one (Appendix 10).

b) Intimacy: The present study contained two measures of the intimacy of the subjects' disclosure. I. Jourard Intimacy: The modified Jourard Topic List contained 19 topics which had been previously rated for intimacy. The intimacy values ranged from 1.02 (low intimacy) to 3.79 (high intimacy). The mean of the intimacy values corresponding to the four topics chosen by the subject was the first measure of intimacy. Previous research has suggested, however, that disclosures on the same topic can vary in terms of the intimacy of the content (Meleshko & Alden, 1993). To address this issue, the present study included an additional measure of intimacy. II. Rated Intimacy: A confederate and an observer rated each of the subject's disclosures for intimacy on 7-point verbally anchored Likert scales (Appendix 8). It was expected that interrater reliability would be sufficiently high so as to allow confederate and observer ratings to be averaged. The mean of these ratings for the four disclosures of each subject would constitute one measure of rated intimacy. After the conclusion of the interaction, each subject was also rated by a confederate and an observer on their impression of the subject's overall intimacy. This comprised a second measure of rated intimacy.
It was expected that these two measures would be highly correlated, thus allowing them to be averaged to yield a single robust measure of rated intimacy.

c) **Content Valence:** A confederate and an observer rated each of the subject's disclosures for the positivity or negativity of its content on 7-point Likert scales (Appendix 8). With this measure higher values reflected more positive content, while lower values indicated more negative content. It was expected that interrater reliability would be sufficiently high so as to allow confederate and observer ratings to be averaged. The mean of these ratings for the four disclosures of each subject constituted one measure of the valence of disclosure content. After the conclusion of the interaction, each subject was also rated by a confederate and an observer on their impression of the overall positivity or negativity of the subjects' disclosures. This comprised a second measure of content valence. As with the Rated Intimacy measures, it was expected that the mean and overall measures of valence would be highly correlated, thus allowing them to be averaged to yield one robust measure of the content valence of the subjects' disclosure.

d) **Flexibility:** Typically, the level of intimacy of the subjects's disclosures has been used to infer reciprocity. Previous research has determined that this is problematic as it fails to take into account the confederate's level of disclosure and thus, does not actually determine the extent to which the subjects moderated their disclosures to match those of the confederate (Meleshko & Alden, 1993). To address this, the current study used two reciprocity indices similar to those used in a previous study (Meleshko & Alden, 1993) to
determine the flexibility exhibited by the subjects in moderating their disclosure to match that of the confederate. I. Jourard Reciprocity: This index was the difference between the mean Jourard Intimacy value of the confederate's four disclosures and the subject's four disclosures. II. Rated Reciprocity: The difference between the Rated Intimacy value of the confederate's four disclosures and the subject's four disclosures served as the second measure of reciprocity. For both of these reciprocity indices higher numbers indicate a greater discrepancy between the intimacy of the confederate's disclosure and the intimacy of the subject's disclosure.

2. Affect and Physiological Arousal.

There were three measures of the subjects' affect and arousal in the current study. They were a) positive affect, b) negative affect, and c) self-reported physiological arousal. Each subject completed all three measures at two different time periods during the study: prior to the interaction, and after the interaction.

a&b) Positive and Negative affect: The subjects' positive and negative affect was measured before and after the interaction with the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988; Appendixes 5 and 6). The PANAS consists of 10-item positive affect (PA) and negative affect (NA) scales. The 20 mood descriptors were selected on the basis of several factor analyses and are considered good factor markers of either high PA or high NA. Extensive data have been reported which demonstrate the reliability and validity of these scales (e.g., Clark & Watson, 1991; Watson et al., 1988). In addition, the PANAS has been shown to be equally reliable and valid
even when the time frame or response format are varied (Watson et al., 1988).

c) **Physiological Arousal:** A self-report scale (Appendixes 3 and 4) developed by Meleshko (1989) was used to measure physiological arousal. This scale was modified from one which was designed for use with individuals suffering from panic attacks (Chambless et al., 1984) as some of the symptoms were not considered applicable. A principal components analysis conducted on this scale revealed a single factor accounting for 50.2% of the variance, suggesting that the individual items could be additively combined to yield a total score (Meleshko, 1989). Higher scores reflect greater self-reported arousal.

3. **Social Acceptance and the Confederates' Affect**

   The extent of social acceptance, or attraction for one's partner, was measured by a 8-item questionnaire which assessed an individual's willingness to engage in varying degrees of future contact with her partner (Appendix 7). This questionnaire has been used extensively in prior studies examining the disclosure of depressives and the individual items have been shown to reliably load on a single factor (e.g., Boswell & Murray, 1981; Gurtman, 1987). Therefore, the individual's ratings were summed to yield an overall score of social acceptance, with higher scores indicating greater acceptance. Both the subjects and the confederates completed this questionnaire. The confederates also rated their own levels of positive and negative affect on the PANAS following the interaction with the subject.
Results

Overview

There were a number of different analyses conducted in the current study. They were divided into two major sections: Preliminary Analyses, and Dependent Variables. The preliminary analyses examined a) Whether differences existed on subject selection variables, b) The manipulation checks, c) Interrater reliability, d) Consistency of confederate content presentation, e) Factorial validity of the physiological arousal scale. The dependent variables section includes analyses of a) The seven measures of disclosure, b) The three measures of affect and physiological arousal, and, c) Social acceptance and confederate affect.

Preliminary Analyses

Subject Selection

To examine whether differences existed on subject selection variables between groups despite random assignment, a 2 (social anxiety) x 2 (depressed-mood) x 2 (confederate intimacy condition) multivariate analysis of variance (MANOVA) was conducted on the subjects' age, SAD scores, and two BDI scores. The MANOVA produced main effects for anxiety, $F_{(1,111)}=252.38$, $p<.001$, and depressed-mood, $F_{(1,111)}=187.28$, $p<.001$.

Followup analyses of variance (ANOVAs) on the anxiety main effect revealed only the expected main effect for SAD scores, $F_{(1,111)}=985.69$, $p<.001$. The nonanxious subjects had significantly lower SAD scores (Mean=3.12) than did the anxious subjects (Mean=16.20).

The followup ANOVAs on the depressed-mood main effect revealed significant effects for both the first BDI score, $F_{(1,111)}=623.31$, $p<.001$, and the second
BDI score, $F_{(1,111)}=522.08$, $p<.001$. This indicated that the nondepressed-mood subjects had lower BDI scores when they filled in the questionnaire package (Mean=3.69) and when they came to the experimental room (Mean=2.89) than did the depressed-mood subjects (Means=19.50 and 18.02 respectively).

Of note here are the absence of any main effects for age, or interaction effects for any of the measures. This suggests that the subjects did not differ on any of the selection criteria variables measured in the current study other than those on which they were expected to differ.

**Manipulation Checks**

In order to provide a satisfactory test of the hypotheses, it was essential that the subjects in the high and low intimacy conditions differ in their assessment of the confederates' disclosure in the two intimacy conditions. The form on which the subjects rated their partners included three items designed to assess the manipulation of confederate intimacy (Appendix 7): using 7-point Likert scales subjects rated the confederates disclosure as (a) Not intimate/Intimate (b) Not revealing/Revealing (c) Not personal/Personal. Pearson correlation coefficients were computed to determine whether these three ratings of the confederates disclosures could be combined. The pattern of intercorrelations can be seen in Table 1.

**Table 1. Subjects' Ratings of the Confederates Disclosure**

<table>
<thead>
<tr>
<th></th>
<th>Not Intimate/Intimate</th>
<th>Not Revealing/Revealing</th>
<th>Not Personal/Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Intimate/Intimate</td>
<td>1.00</td>
<td>.76***</td>
<td>.89***</td>
</tr>
<tr>
<td>Not Revealing/Revealing</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Personal/Personal</td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

*** = $p<.001$
The ratings of Not intimate/Intimate, Not revealing/Revealing, Not personal/Personal were all highly intercorrelated. Therefore, it was decided to take the average of these three ratings to provide a robust measure of the subjects' perception of the extent of confederate disclosure. A 2 (social anxiety) x 2 (depressed-mood) x 2 (confederate intimacy) ANOVA produced only one significant outcome, a main effect for confederate intimacy, $F_{1,141}=120.98, p<.001$. The subjects reported that the confederates in the high intimacy condition were significantly more intimate, revealing, and personal (Mean=5.70) than were the confederates in the low intimacy condition (Mean=3.61). This indicates that the manipulation of confederate intimacy was effective. Of note here are the absence of any other significant main or interaction effects. This indicates that all the subjects, regardless of their status, perceived the disclosure of the confederates similarly in terms of its intimacy.

Interrater Reliability

It was necessary to determine the extent of confederate and observer agreement on the ratings of intimacy and valence prior to combining their ratings on these measures for the final analyses. The confederate-observer reliability (Pearson's $r$) for the verbally anchored intimacy ratings of each of the subjects' disclosures was $r=.91$, $p<.001$. The interrater reliability for the rating of the subjects' overall intimacy during the interaction was $r=.86$, $p<.001$. In view of these satisfactory levels of interrater reliability, confederate and observer ratings of the intimacy of the subjects' disclosures were averaged. The correlation between the mean intimacy ratings and the overall intimacy ratings was $r=.95$, $p<.001$. As a result of the
extremely high correlation between these measures they were averaged to yield a single measure of Rated Intimacy for the final data analyses.

The confederate-observer reliability for the verbally anchored valence ratings of each of the subjects' disclosures was $r=.92$, $p<.001$. The interrater reliability for the rating of the subjects' overall valence during the interaction was $r=.88$, $p<.001$. As with the intimacy measures, the confederate and observer ratings of the valence of the subjects' disclosures were averaged. The correlation between the mean valence measure and the overall valence measure was $r=.94$, $p<.001$; as a result, these two measures were averaged to provide a single measure of Content Valence for the final data analyses.

Confederate Consistency Checks

The confederates' consistency in the presentation of disclosure content was examined by looking at the checklists which summarized major content areas for each of the disclosures. The first confederate included 99.67% (Range=98.33% to 100% per subject) of the content in her low intimacy disclosures and 99.51% (Range=96.67% to 100% per subject) in the high intimacy ones. The second confederate included 99.67% (Range=96.67% to 100%) of the low intimacy content and 99.23% (Range=96.67% to 100%) of the high intimacy content. The third confederate included 99.74% (Range=96.67% to 100%) of the content in the low intimacy disclosures and 97.54% (Range=96.67% to 100%) in the high intimacy ones. This suggests that subjects within a given intimacy condition were presented with virtually the same content by the confederates.

As three confederates were utilized in the experiment, all major multivariate analyses were conducted with the confederate as a factor. The
3 (confederate) x 2 (social anxiety) x 2 (depressed-mood) x 2 (intimacy condition) MANOVAs produced no main or interaction effects for the confederate variable and thus it will not be mentioned in the subsequent analyses.

**Physiological Arousal Scale**

A self-report physiological arousal scale developed by Meleshko (1989) was used in the present study. Although a principal components analysis in that study had shown that all of the items loaded on a single factor accounting for 50.2% of the variance, it was conducted on a relatively small sample (n=100). Therefore, it was decided to conduct principal components analyses on the physiological arousal scales completed by the subjects prior to the interaction as well as subsequent to the interaction. The principal components analysis of the scale completed before the interaction revealed the presence of a single factor accounting for 49.2% of the variance. A second principal components analysis conducted on the scale completed after the interaction revealed a single factor accounting for 61.3% of the variance. The exact factor loadings can be seen in Table 2.
Table 2. Physiological Arousal Scale Factor Matrix

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-interaction</td>
</tr>
<tr>
<td>2</td>
<td>Heart beating faster</td>
<td>.79</td>
</tr>
<tr>
<td>3</td>
<td>Feeling short of breath</td>
<td>.74</td>
</tr>
<tr>
<td>1</td>
<td>Butterflies or knot in stomach</td>
<td>.72</td>
</tr>
<tr>
<td>4</td>
<td>Pressure in chest</td>
<td>.72</td>
</tr>
<tr>
<td>7</td>
<td>Dry throat</td>
<td>.67</td>
</tr>
<tr>
<td>6</td>
<td>Sweating</td>
<td>.67</td>
</tr>
<tr>
<td>5</td>
<td>Lump in throat</td>
<td>.62</td>
</tr>
</tbody>
</table>

The results of these two principal components analyses in conjunction with the results from the Meleshko (1989) study strongly suggest that the individual items on the self-report physiological arousal scale can be additively combined to yield a total score.

Dependent Variables

Analyses of the Subjects' Disclosure

The seven measures of the subjects' disclosure were analyzed by means of a 2 (social anxiety) x 2 (depressed-mood) x 2 (confederate intimacy) multivariate analysis of variance (MANOVA). Due to the number of variables, a more stringent level of significance (.01) was used. The MANOVA produced three significant outcomes, a main effect for social anxiety, $F(1,144)=3.52$, $p<.005$, a main effect for depressed mood, $F(1,144)=6.32$, $p<.001$, and a main effect for confederate intimacy, $F(1,144)=32.54$, $p<.001$. 

The followup univariate analyses of variance (ANOVAs) on the main effect for social anxiety revealed a significant outcome for Duration, $F_{(1,141)} = 10.79$, $p<.001$. The socially anxious subjects spoke for a significantly shorter length of time in both confederate intimacy conditions (Mean=83.21 seconds per disclosure) than did the nonanxious subjects (Mean=102.88 seconds per disclosure). The exact cell means and standard deviations for all seven measures of the subjects' disclosure can be seen in Tables 3-9.

Table 3. Means and Standard Deviations for Duration

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th>Anxious</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>94.74 (36.40)</td>
<td>122.41 (58.82)</td>
</tr>
<tr>
<td>Intimate</td>
<td>95.22 (22.70)</td>
<td>99.15 (23.20)</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
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</table>

Table 4. Means and Standard Deviations for Rate of Speech

<table>
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<th>Anxious</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>2.85 (0.49)</td>
<td>3.25 (0.55)</td>
</tr>
<tr>
<td>Intimate</td>
<td>3.15 (0.58)</td>
<td>3.15 (0.49)</td>
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<tr>
<td>Mean (Standard Deviation)</td>
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</tr>
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</table>
Table 5. **Means and Standard Deviations for Jourard Intimacy**

<table>
<thead>
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<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>1.59 (0.24)</td>
<td>1.67 (0.27)</td>
</tr>
<tr>
<td>Intimate</td>
<td>2.18 (0.30)</td>
<td>2.24 (0.31)</td>
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**Mean (Standard Deviation)**

Table 6. **Means and Standard Deviations for Rated Intimacy**

<table>
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<tr>
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<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>2.19 (0.58)</td>
<td>2.98 (0.90)</td>
</tr>
<tr>
<td>Intimate</td>
<td>4.10 (1.03)</td>
<td>4.23 (1.07)</td>
</tr>
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</table>

**Mean (Standard Deviation)**

Table 7. **Means and Standard Deviations for Valence**

<table>
<thead>
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<tbody>
<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>4.11 (0.50)</td>
<td>3.48 (0.66)</td>
</tr>
<tr>
<td>Intimate</td>
<td>3.54 (0.42)</td>
<td>2.98 (0.57)</td>
</tr>
</tbody>
</table>

**Mean (Standard Deviation)**
Table 8. Means and Standard Deviations for Jourard Reciprocity

<table>
<thead>
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<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NonIntimate</td>
<td>0.30</td>
<td>(0.24)</td>
<td>0.38</td>
<td>(0.28)</td>
<td>0.38</td>
<td>(0.30)</td>
<td>0.39</td>
</tr>
<tr>
<td>Intimate</td>
<td>0.68</td>
<td>(0.30)</td>
<td>0.62</td>
<td>(0.31)</td>
<td>0.88</td>
<td>(0.35)</td>
<td>0.73</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9. Means and Standard Deviations for Rated Reciprocity

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NonIntimate</td>
<td>0.51</td>
<td>(0.42)</td>
<td>1.13</td>
<td>(0.88)</td>
<td>0.91</td>
<td>(0.83)</td>
<td>1.09</td>
</tr>
<tr>
<td>Intimate</td>
<td>1.55</td>
<td>(1.03)</td>
<td>1.51</td>
<td>(0.94)</td>
<td>2.46</td>
<td>(1.20)</td>
<td>1.46</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The followup univariate analyses on the main effect for depressed-mood produced significant outcomes for Duration, $F_{(1,11)}=8.94$, $p<.005$, Rated Intimacy, $F_{(1,11)}=14.50$, $p<.001$, and Valence, $F_{(1,11)}=18.96$, $p<.001$.

The depressed-mood subjects spoke for significantly longer periods of time in both confederate intimacy conditions (Mean=102.0 seconds per disclosure) than did the nondepressed-mood subjects (Mean=84.09 seconds per disclosure). The depressed-mood subjects' disclosures in both confederate conditions were rated as more intimate (Mean=3.65) and negative (Mean=3.26) than were those of the nondepressed-mood subjects (Means=3.03 and 3.69 for Rated Intimacy and Valence respectively).
The follow-up univariate F-tests on the main effect for confederate intimacy revealed significant outcomes for Jourard Intimacy, $F_{(1,134)}=98.66$, $p<.001$, Rated Intimacy, $F_{(1,134)}=65.70$, $p<.001$, Valence, $F_{(1,134)}=16.17$, $p<.001$, Jourard Reciprocity, $F_{(1,134)}=58.82$, $p<.001$, and Rated Reciprocity, $F_{(1,134)}=32.34$, $p<.001$.

The subjects in the high confederate intimacy condition were more intimate in their disclosure than the subjects in the low intimacy condition on both the Jourard Intimacy (Means=2.13 and 1.66 for the high and low confederate disclosure conditions respectively) and the Rated Intimacy measures (Means=4.00 and 2.68 for the high and low conditions). The disclosures of the subjects in the high confederate intimacy condition were also more negative in content (Mean=3.28) than the disclosures of the subjects in the nonintimate condition (Mean=3.67). Subjects in the high intimacy condition reciprocated the disclosures of their partners to a lesser extent than did the subjects in the low intimacy condition as measured by both the Jourard Reciprocity Index (Means=0.73 and 0.36 for high and low intimacy conditions respectively) and the Rated Reciprocity Index (Means=1.74 and 0.91 for high and low intimacy).

To summarize the results for the disclosure of the anxious subjects as compared to the nonanxious subjects, there was no difference in terms of the anxious subjects' rate of speech but there was a difference in Duration. The anxious subjects disclosed for a significantly lesser amount of time than did the nonanxious subjects. Although it was not a significant difference ($p=.03$ and $p=.02$), the disclosure of the anxious subjects tended to be less reciprocal than that of the nonanxious subjects on both the Rated Reciprocity and Jourard Reciprocity Indices in a fashion that would be consistent with a pattern of moderated intimacy. There was no difference in the valence of
their disclosure, that is, the information they disclosed was neither more positive nor more negative than that disclosed by the nonanxious subjects.

The depressed-mood subjects also exhibited different patterns of disclosure when compared to nondepressed-mood subjects, patterns which were quite different from those exhibited by the anxious subjects. They spoke for longer periods of time than did the nondepressed-mood subjects. They were somewhat more intimate in terms of the topics they chose, but not significantly so. However, the information they disclosed was not only significantly more intimate, but also more negative than that disclosed by the nondepressed-mood subjects. Despite this pattern of being more intimate in terms of their absolute intimacy, they were not any less reciprocal than the nondepressed-mood subjects on either measure of reciprocity.

Analyses of the Subjects' Affect and Arousal

For this category of dependent variables there were three measures (positive affect, negative affect, and self-reported physiological arousal\(^1\)) with data collected at two time periods (pre-interaction and post-interaction). The data were analyzed by means of a 2 (social anxiety) x 2 (depressed-mood) x 2 (confederate intimacy) x 2 (time) repeated-measures MANOVA. Two sets of analyses will be presented: 1) The between subjects analyses of the pre-interaction measures. 2) The between-within analyses of the subjects' pre/post-interaction scores.

The MANOVA yielded significant between subjects pre-interaction effects for anxiety, \(F_{(1,113)}=4.86, p<.005\), and depressed-mood, \(F_{(1,113)}=13.04, p<.001\).

\(^1\) The pattern of correlations between these three variables in this study were positive affect and negative affect, \(r= -.19\); positive affect and physiological arousal, \(r= -.15\); negative affect and physiological arousal, \(r= .52\).
Subsequent univariate ANOVAs on the main effect for social anxiety revealed significant outcomes for positive affect, $F_{(1,33)}=7.53$, $p<.01$, and negative affect, $F_{(1,33)}=8.05$, $p<.005$. The socially anxious subjects had lower pre-interaction levels of positive affect (Mean=24.87) than the nonanxious subjects (Mean=27.36). They also reported higher levels of negative affect (Mean=17.54) than the nonanxious subjects (Mean=15.74). Interestingly, there was not a significant difference in the pre-interaction levels of physiological arousal between the anxious and nonanxious subjects. All of the pre- (Time 1) and post-interaction (Time 2) cell means and standard deviations for positive affect, negative affect, and physiological arousal can be seen in Tables 10 to 12.
Table 10. Means and Standard Deviations for the Subjects' Levels of Positive Affect

<table>
<thead>
<tr>
<th></th>
<th>Not Intimate</th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nonanxious</td>
<td>Nondepressed-M</td>
<td>29.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.75)</td>
</tr>
<tr>
<td></td>
<td>Anxious</td>
<td>Nondepressed-M</td>
<td>23.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(8.33)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed-M</td>
<td>25.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.96)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed-M</td>
<td>23.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.73)</td>
</tr>
<tr>
<td></td>
<td>Intimate</td>
<td>Nonanxious</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.88)</td>
</tr>
<tr>
<td></td>
<td>Anxious</td>
<td>Nondepressed-M</td>
<td>26.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.88)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed-M</td>
<td>29.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4.44)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed-M</td>
<td>22.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6.39)</td>
</tr>
</tbody>
</table>

Mean (Standard Deviation)
Table 11. **Means and Standard Deviations for the Subjects' Levels of Negative Affect**

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not Intimate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonanxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>12.00(1.89)</td>
<td>12.25(2.00)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>20.80(9.78)</td>
<td>16.25(5.39)</td>
</tr>
<tr>
<td>Anxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>14.60(4.94)</td>
<td>14.90(4.66)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>20.70(7.85)</td>
<td>16.85(4.57)</td>
</tr>
<tr>
<td><strong>Intimate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonanxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>12.75(2.69)</td>
<td>15.40(4.15)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>17.40(5.95)</td>
<td>17.40(6.32)</td>
</tr>
<tr>
<td>Anxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>14.70(3.76)</td>
<td>18.95(6.24)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>20.15(8.48)</td>
<td>20.85(7.41)</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Standard Deviation)</td>
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<td></td>
</tr>
</tbody>
</table>
Table 12. Means and Standard Deviations for the Subjects’ Levels of Physiological Arousal

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not Intimate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonanxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>9.25</td>
<td>10.25</td>
</tr>
<tr>
<td></td>
<td>(1.52)</td>
<td>(3.51)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>15.90</td>
<td>16.45</td>
</tr>
<tr>
<td></td>
<td>(8.67)</td>
<td>(8.34)</td>
</tr>
<tr>
<td>Anxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>10.40</td>
<td>13.25</td>
</tr>
<tr>
<td></td>
<td>(3.79)</td>
<td>(6.31)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>14.35</td>
<td>15.90</td>
</tr>
<tr>
<td></td>
<td>(6.74)</td>
<td>(8.55)</td>
</tr>
<tr>
<td><strong>Intimate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonanxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>10.10</td>
<td>11.90</td>
</tr>
<tr>
<td></td>
<td>(2.67)</td>
<td>(4.83)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>14.55</td>
<td>15.00</td>
</tr>
<tr>
<td></td>
<td>(6.17)</td>
<td>(8.23)</td>
</tr>
<tr>
<td>Anxious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondepressed-M</td>
<td>12.15</td>
<td>17.25</td>
</tr>
<tr>
<td></td>
<td>(6.10)</td>
<td>(9.38)</td>
</tr>
<tr>
<td>Depressed-M</td>
<td>14.70</td>
<td>20.05</td>
</tr>
<tr>
<td></td>
<td>(7.14)</td>
<td>(9.08)</td>
</tr>
</tbody>
</table>

The followup ANOVAs on the main effect for depressed-mood revealed significant outcomes for positive affect, $F_{(1,15)}=7.23$, $p<.01$, negative affect, $F_{(1,15)}=32.10$, $p<.001$, and physiological arousal, $F_{(1,15)}=18.10$, $p<.001$. The depressed-mood subjects reported lower pre-interaction levels of positive affect (Mean=24.01) than did the nondepressed-mood subjects (Mean=28.38). They also had higher levels of negative affect (Mean=19.76) than the nondepressed-mood subjects (Mean=13.51). In addition, their reported level of physiological arousal was also higher (Mean=14.88) than that reported by the nondepressed-mood subjects (Mean=10.47).
To summarize, prior to the interaction, the socially anxious subjects were characterized by lower levels of positive affect, higher levels of negative affect, and similar levels of physiological arousal as compared to the nonanxious subjects. The depressed-mood subjects were characterized by lower levels of positive affect, higher levels of negative affect, and higher levels of physiological arousal as compared to the nondepressed-mood subjects.

The second set of analyses to be presented are the between-within subjects analyses of the pre/post-interaction measures. The 2 (confederate intimacy) x 2 (anxiety) x 2 (depressed-mood) x 2 (time) repeated measures MANOVA yielded a significant main effect for time, \( F(1,111) = 20.03, p < .001 \). There were also a number of significant interactions including an anxiety x time interaction, \( F(1,111) = 2.76, p < .05 \), depressed-mood x time interaction, \( F(1,111) = 8.88, p < .001 \), and confederate intimacy x time interaction, \( F(1,111) = 5.93, p < .001 \).

Followup univariate F-tests on the main effect for time revealed significant outcomes for positive affect, \( F(1,111) = 38.56, p < .001 \), and self-reported physiological arousal, \( F(1,111) = 22.90, p < .001 \). The subjects' post-interaction levels of positive affect were significantly higher (Mean = 29.06) than their pre-interaction levels (mean = 26.12). The social interaction also resulted in an increase in their physiological arousal (Means = 12.67 pre-interaction and 15.04 post-interaction). These main effects were further qualified however, by the several interaction effects which are discussed below.

Subsequent univariate F-tests on the anxiety x time interaction revealed a significant outcome for the measure of self-reported physiological arousal, \( F(1,111) = 8.04, p < .005 \). This interaction is illustrated in Figure 1.
Figure 1. The Subjects’ Levels of Physiological Arousal as a Function of Anxiety and Time

![Graph showing levels of physiological arousal for nonanxious and anxious conditions across pre- and post-interaction times.]

Table 13. Simple Main Effects for the Anxiety x Time Interaction for Physiological Arousal

<table>
<thead>
<tr>
<th>Source</th>
<th>MS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time at Nonanxious</td>
<td>18.05</td>
<td>1</td>
<td>0.95</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Time at Anxious</td>
<td>137.64</td>
<td>1</td>
<td>7.25</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Within (Error)</td>
<td>18.99</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A simple main effects analysis was conducted on the anxiety x time interaction, the exact results of which can be seen in Table 13. This analysis revealed that the conversation with their partner resulted in a
significant increase in physiological arousal for the anxious subjects (Means=12.90 pre-interaction and 16.61 post-interaction) but not for the nonanxious subjects (Means=12.45 versus 13.40).

Followup univariate F-tests on the depressed-mood x time interaction revealed significant outcomes for both the measures of positive affect, $F_{(1,111)}=19.94, p<.001$, and negative affect, $F_{(1,111)}=14.17, p<.001$. These interactions are illustrated in Figure 2 (positive affect) and Figure 3 (negative affect).

![Figure 2. The Subjects' Levels of Positive Affect as a Function of Depressed-Mood and Time](image-url)
Simple main effects analyses were conducted on both of these interactions. The exact results of these analyses can be seen in Tables 14 and 15. The simple effects analysis of the subjects' levels of positive affect revealed that the depressed-mood subjects experienced a significant increase in their level of positive affect during the interaction (Means=23.86 pre-interaction and 28.91 post-interaction) but that the nondepressed-mood subjects did not (Means=28.38 versus 29.20). The analysis of the subjects' levels of negative affect revealed that the depressed-mood subjects experienced a significant decrease in their level of negative affect during the conversation (Means=19.76 pre-interaction and 17.84 post-interaction).
Table 14. Simple Main Effects for the Depressed-Mood x Time Interaction for Positive Affect

<table>
<thead>
<tr>
<th>Source</th>
<th>Ms</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time at Nondep-Mood</td>
<td>13.61</td>
<td>1</td>
<td>0.76</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Time at Dep-Mood</td>
<td>510.05</td>
<td>1</td>
<td>28.49</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within (Error)</td>
<td>17.90</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15. Simple Main Effects for the Depressed-Mood x Time Interaction for Negative Affect

<table>
<thead>
<tr>
<th>Source</th>
<th>Ms</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time at Nondep-Mood</td>
<td>69.56</td>
<td>1</td>
<td>3.81</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Time at Dep-Mood</td>
<td>73.73</td>
<td>1</td>
<td>4.04</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Within (Error)</td>
<td>18.25</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subsequent univariate F-tests on the confederate intimacy x time interaction revealed a significant outcome for the measure of negative affect, $F_{(1,151)}=14.74$, $p<.001$. This interaction is illustrated in Figure 4.
A simple main effects analysis was conducted on the confederate intimacy x time interaction for negative affect. The exact results of this analysis can be seen in Table 16. This analysis revealed different patterns of results for the subjects in the low and high confederate intimacy conditions. Subjects
experienced a significant decrease in their levels of negative affect as a result of their interaction with the nonintimate confederate (Means=17.02 pre-interaction and 15.06 post-interaction). In contrast, they reported a significant increase in their level of negative affect (Means=16.25 pre-interaction and 18.15 post-interaction) as a result of their interaction with the highly intimate confederate.

To summarize these results, it appears that the social interaction had very different effects on the levels of positive affect, negative affect, and physiological arousal, depending on a subject’s status. Prior to the interaction the anxious subjects were characterized by significantly lower levels of positive affect, significantly higher levels of negative affect, and similar levels of physiological arousal as compared to the nonanxious subjects. The interaction with their partner served only to significantly increase their level of physiological arousal. They maintained their low levels of positive affect and high levels of negative affect throughout the conversation.

The depressed-mood subjects were somewhat similar to the anxious subjects prior to the interaction. On the pre-interaction measures they reported lower levels of positive affect and higher levels of negative affect compared to the nondepressed-mood subjects. They also reported significantly higher levels of physiological arousal. The effect of the social interaction, however, appears to have been much more positive for the depressed-mood subjects than it was for the anxious subjects. The conversation with their partners resulted not only in a significant increase in their low levels of positive affect, but in a significant decrease in their high levels of negative affect. There was no change in their higher pre-interaction levels of physiological arousal.
Analyses of Social Acceptance and the Confederates' Affect

There has been considerable controversy since Coyne's (1976a) original article as to whether depressed individuals elicit a greater degree of negative response from others than do nondepressed individuals. It has recently been suggested that some of the problems involved in the long series of inconsistent results may be methodological. It may be that studies finding no significant differences between depressed and nondepressed individuals have lacked sufficient power and/or used more conservative analyses such as Multivariate Analyses of Variance (e.g., Marcus & Nardone, 1992). As a result of these potential difficulties, it was decided to use a more liberal method of data analyses for this set of measures in the current study. Rather than analyze all four measures in a MANOVA, it was decided to use a series of four univariate ANOVAs.

The univariate ANOVA on the measure of the subjects' social acceptance of the confederate revealed only a significant outcome for intimacy $F_{(1,131)}=7.25$, $p<.01$. The subjects in the high confederate intimacy condition indicated a greater willingness to interact with their partner in the future (Mean=42.64) than did the subjects in the low intimacy condition (Mean=39.95). The exact cell means and standard deviations for all four measures in this set of analyses can be seen in Tables 17-20.
Table 17. **Means and Standard Deviations for the Subjects' Social Acceptance of the Confederate**

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th></th>
<th>Anxious</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td>Nondepressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>39.10</td>
<td>(5.71)</td>
<td>41.20</td>
<td>(7.45)</td>
</tr>
<tr>
<td>Intimate</td>
<td>43.65</td>
<td>(6.86)</td>
<td>43.80</td>
<td>(5.90)</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 18. **Means and Standard Deviations for the Confederates' Social Acceptance of the Subject**

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th></th>
<th>Anxious</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td>Nondepressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>26.40</td>
<td>(11.27)</td>
<td>27.60</td>
<td>(13.64)</td>
</tr>
<tr>
<td>Intimate</td>
<td>29.85</td>
<td>(14.89)</td>
<td>29.00</td>
<td>(14.32)</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19. **Means and Standard Deviations for the Confederate's Level of Positive Affect**

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th></th>
<th>Anxious</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
<td>Nondepressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>27.15</td>
<td>(5.42)</td>
<td>28.30</td>
<td>(4.57)</td>
</tr>
<tr>
<td>Intimate</td>
<td>30.60</td>
<td>(3.95)</td>
<td>31.55</td>
<td>(5.64)</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 20. Means and Standard Deviations for the Confederate's Level of Negative Affect

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious</th>
<th>Anxious</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nondepressed-M</td>
<td>Depressed-M</td>
</tr>
<tr>
<td>NonIntimate</td>
<td>12.20 (2.33)</td>
<td>13.35 (3.54)</td>
</tr>
<tr>
<td>Intimate</td>
<td>13.25 (3.35)</td>
<td>16.45 (9.44)</td>
</tr>
</tbody>
</table>

Mean (Standard Deviation)

The ANOVA on the measure of the confederates' social acceptance of the subjects revealed a significant anxiety x depressed-mood x confederate intimacy interaction, $F_{(1,113)}=4.15$, $p<.05$. This interaction is illustrated in Figure 5.
Figure 5. The Confederate's Acceptance of the Subject as a Function of Anxiety, Depressed-Mood and Confederate Intimacy

- - - - - - - - Nonanxious/ Nondepressed-Mood
- - - - - - - - Nonanxious/ Depressed-Mood
- - - - - - - - Anxious/ Nondepressed-Mood
- - - - - - - - Anxious/ Depressed-Mood

CONFEDERATE INTIMACY

Low Intimacy           High Intimacy
Simple main effects analyses were conducted on the anxiety x depressed-mood x confederate intimacy interaction. The exact results of these analyses can be seen in Table 21. They revealed that the confederates were less willing to interact in the future (more rejecting) with the anxious/nondepressed-mood subjects in the high confederate intimacy condition. Interestingly, with this measure of the confederates' social acceptance of the subjects, even the use of a more liberal method of data analyses did not find any significant differences between the confederate's acceptance of depressed-mood and nondepressed-mood subjects.

The ANOVA on the confederates' levels of positive affect revealed significant outcomes for depressed-mood, \( F_{(1,119)} = 5.45, p < .05 \), and confederate intimacy, \( F_{(1,119)} = 14.56, p < .001 \). The confederates reported higher levels of positive affect after their interactions with the depressed-mood subjects (Mean=30.70) than they did after their interactions with the nondepressed-mood subjects.
subjects (Mean=28.89). They also reported greater levels of positive affect in the high intimacy confederate disclosure condition (Mean=31.28) than in the low confederate intimacy condition (Mean=28.31).

The ANOVA on the confederates' levels of negative affect produced a significant outcome for intimacy, $F(1, 111) = 4.26$, $p < .05$. The confederates reported experiencing greater levels of negative affect in the high confederate intimacy condition (Mean=14.29) than in the low confederate intimacy one (Mean=12.51).
Discussion

Overview

The results of this study indicated that both socially anxious and depressed-mood subjects displayed nonnormative patterns of self-disclosure and that the exact patterns of disclosure were different for the two types of subjects. The socially anxious subjects were less likely to reciprocate their partner's disclosure and they displayed increased arousal subsequent to the interaction. The depressed-mood subjects, on the other hand, displayed an overly intimate, negatively toned pattern of disclosure and actually displayed positive affective changes during the interaction. Partners also differed in their responses to the two types of subjects. Whereas the socially anxious subjects were rejected by their partners, the depressed subjects evoked an ambivalent emotional reaction in their partners.

Because of the number of measures utilized in the current study, this section will discuss the major implications of the three categories of dependent variables separately before attempting to integrate them and discuss the overall conclusions and implications of the study.

Disclosure

The analyses of the measures of the subjects' disclosure revealed that socially anxious and depressed-mood subjects exhibited different patterns of disclosure than did their controls. For the most part, the differences they exhibited are consistent with a view supporting the specificity of maladaptive interpersonal behaviours.

Socially anxious subjects disclosed for a significantly shorter period of time and tended to reciprocate their partners level of intimacy to a lesser
extent in both confederate conditions than did the nonanxious subjects. The reciprocity measures do not provide information on the direction of anxious subjects' nonreciprocity, for example, if they were more intimate or less intimate than their partner. In the nonintimate confederate condition, the socially anxious subjects evidenced a tendency to be more intimate in their disclosure than the nonanxious subjects on both measures. In the high intimacy confederate condition, the socially anxious subjects exhibited a tendency to be less intimate than the nonanxious subjects on both measures. Interestingly, it appears that depressed-mood was salient in the sense that the socially anxious/depressed-mood subjects conformed more to the disclosure pattern of the nonanxious/depressed-mood subjects, than they did to the pattern of the socially anxious/nondepressed-mood ones.

Thus, the nonreciprocity of the anxious subjects took the form of a moderated pattern of disclosure. They were more intimate than the nonanxious subjects in response to the nonintimate confederate, but less intimate than the nonanxious subjects in response to the intimate one. This moderated pattern of disclosure is consistent with those found in previous studies with socially anxious (Meleshko and Alden, 1993) and trait anxious individuals (Post et al., 1978). There was no difference in the content valence of the anxious subjects' disclosure, that is, the information they disclosed was neither more positive nor more negative than that disclosed by the nonanxious subjects.

The depressed-mood subjects also exhibited different patterns of disclosure from control subjects. The depressed-mood subjects spoke for longer periods of time than nondepressed-mood subjects. The pattern of results suggested that the depressed-mood subjects also had a tendency to select more intimate topics and to reveal information on those topics that was
not only more intimate, but more negative than that revealed by the nondepressed-mood subjects. This occurred in response to both the intimate and nonintimate confederate. There were no differences in the extent to which they reciprocated the disclosure of their partner. These results are similar to those in a recent study by Burchill and Styles (1988) which found that depressed subjects tended to have relatively intense interactions with their roommates as compared to nondepressed subjects.

To summarize, when we compare the socially anxious and depressed-mood subjects we find that they exhibited different and largely specific patterns of disclosure. Recently, a Fever model of disclosure has been advanced which suggests that individuals tend to disclose more when they are psychologically distressed, for example, anxious or depressed (Stiles, 1987; Stiles et al., 1992). The initial research to support this model was conducted with anxious individuals. The pattern of disclosure exhibited by the depressed-mood subjects would conform with this model. They exhibited greater amounts of disclosure which was characterized by excessive intimacy in both nonintimate and intimate interactions. However, the results of the current, and previous studies with socially anxious and trait-anxious subjects (e.g., Meleshko & Alden, 1993; Post et al., 1978) clearly fail to support the validity of this model for anxious individuals. Rather than disclose more, these studies clearly show that the disclosure of anxious individuals is best characterized as reduced in amount and moderated in intimacy. The present study would also suggest that the valence of their disclosure does not differ, that it is neither more positive nor more negative. Thus, it would appear that the Fever Model of disclosure does not provide a complete interpretive framework for the disclosure of psychologically distressed individuals.
The results of this study also suggest that some of the previous conflicting findings on patterns of disclosure may have been due to the nature of the subject selection process. For example, the studies on neurotics may have included different proportions of anxious and depressed or dysphoric subjects depending on the instruments which were used for subject selection. Strassberg et al. (1988) selected their neurotics on the basis of MMPI profiles with Scales 2 (Depression) and 7 (Psychasthenia) with T-scores of at least 70; Chaikin et al. (1975) used subjects with scores of at least 30 on the Maudsley Personality Inventory. It is difficult to estimate how similar these samples were or how they may have broken down in terms of anxiety and depression. McNeil et al. (1987) used outpatients selected on the basis of their BDI scores but some of their depressed patient group included individuals whose clinical diagnosis was an anxiety disorder. It would appear that future research will have to be cognizant that self-disclosure, and perhaps other interpersonal behaviours, appear to be specific to different types of psychologically distressed individuals.

**Affect and Physiological Arousal**

Positive affect, negative affect, and physiological arousal were measured before and after the interaction. Depressed and socially anxious subjects differed from controls prior to the interaction and also displayed different patterns of changes on these three measures over the course of the interaction.

Prior to the interaction, socially anxious subjects were characterized by lower levels of positive affect and higher levels of negative affect than nonanxious subjects. Interestingly, there were no significant differences between socially anxious and nonanxious subjects in the preinteraction levels
of physiological arousal. This is perhaps not as surprising as it first seems in that social anxiety is more situational than pervasive in nature. The depressed-mood subjects also differed from nondepressed-mood subjects on preinteraction levels of affect and arousal. As compared to nondepressed-mood subjects, depressed-mood subjects reported lower levels of positive affect, and higher levels of negative affect and physiological arousal.

The repeated measures analyses of the subjects' affect and physiological arousal revealed that the interaction had very different effects for anxious and depressed-mood subjects. There was an increase in physiological arousal and positive affect for all subjects across confederate conditions. This increase is consistent with recent studies that have found that social interactions increase positive affect but not negative affect (e.g., McIntyre et al., 1991; McIntyre et al., 1990). This effect was modified, however, by a number of interactions which suggested that the interaction affected the various sub-groups of subjects differently.

Socially anxious subjects experienced a significant increase in arousal over the course of the interaction, but no changes in either positive or negative affect. Thus, the interaction appears to have had only a negative effect on these anxious subjects as they not only maintained their lower levels of positive affect and higher levels of negative affect, but they also became more aroused as a result of conversing with their partner. Given this pattern of results, it is not hard to imagine why socially anxious individuals experience distress in social situations and try to avoid them.

The depressed-mood subjects experienced a significant increase in positive affect and a significant decrease in negative affect as a result of the interaction. Given that the depressed-mood subjects were characterized by lower preinteraction levels of positive affect, and higher levels of negative
affect and physiological arousal than nondepressed-mood subjects, the interaction can be viewed as having very positive effects on them. This type of positive outcome is similar in many ways to the results of a study by Burchill and Stiles (1988) which found that depressed subjects reported a positive mood induction after interactions with their roommates. Another study has found, however, that depressed subjects did not feel better after an interaction, but this study failed to include a preinteraction measure to determine whether the depressed subjects may have felt even worse to begin with (Rosenblatt & Greenberg, 1991).

Burchill and Stiles (1988) speculated that the positive post-interactional effect in their study may have been due to relief that the ordeal of a social interaction was over, or a "clearing of the air" as these relationships tended to be characterized by behavioral avoidance by the roommates. As the current study involved a first-meeting interaction rather than one between roommates, it would appear that the positive mood induction was not due to the opportunity to discuss mutual problems, to "clear the air". Although the positive changes in affect could have been due to relief over the conclusion of the interaction, if this were the case, one would expect only a decrease in general distress (negative affect) rather than a concomitant increase in enthusiasm and pleasurable engagement (positive affect). These results suggest that while the depressed-mood subjects may have been relieved that the interaction was over, they also enjoyed the opportunity to talk to their partner. One could speculate that the opportunity to discuss negative, intimate material may have resulted in temporary relief of their depressed-mood. This would be consistent with a somewhat analogous body of research which has found that the opportunity to discuss problems is therapeutic (e.g., Coates & Wortman, 1980). Whatever the specific reasons, it appears that the
interactions in this study had almost a cathartic effect for the depressed-mood subjects.

Interestingly, the results revealed that whereas subjects in the nonintimate condition experienced a significant decrease in negative affect, subjects in the high intimacy condition experienced a significant increase in negative affect. The major differences between the two conditions was the intimacy of the interaction. Perhaps social interactions characterized by superficial discussions may result in decreased levels of general distress while those characterized by discussion of intimate, emotionally laden material result in increased distress. This suggests that the relationship between social activity and positive affect, negative affect, and physiological arousal is more complex than recognized and may involve not only differences in subject status variables, but situational ones.

Social Acceptance and the Confederate's Affect

Subjects in the high intimacy condition reported a greater willingness to interact with their partner in the future than did subjects in the low intimacy condition. This result is used to indicate that the very robust reciprocity effect (e.g., Meleshko & Alden, 1993) was indeed operative in the current study.

The significant 3-way interaction for confederate's social acceptance of the subjects indicated that the confederates were less willing to interact in the future with the socially anxious subjects in the high intimacy condition. This result is similar to those in a recent study which found that socially anxious individuals were less liked by their partners after a first-meeting interaction (Meleshko & Alden, 1993). There are some differences, however, as the current study found decreased social acceptance only in the high intimacy
condition, while the other study found less liking in both intimacy conditions. The different pattern of results may be due to the use of different measures in the two studies, social acceptance in the current study and attraction in the previous one. However, it would appear that socially anxious individuals are liked less and rejected more than nonanxious people in acquaintance type interactions, especially in those that involve developing intimacy.

Interestingly, the absence of a main effect for depressed-mood on the measure of social acceptance, even with a more liberal method of data analysis, indicated that the confederates did not negatively evaluate the depressed-mood subjects and were just as willing to interact with them in the future as they were with other subjects. The results of this and other recent studies (e.g., McNeil et al., 1987; Rosenblatt & Greenberg, 1991) clearly indicate that positive or negative evaluation of one's partner is not affected by level of depression during first-meeting, face-to-face interactions.

The confederates reported higher levels of positive affect after their interactions in the high intimacy condition than after their interactions in the low intimacy ones. They also reported higher levels of positive affect after their interactions with depressed-mood subjects than after their interactions with nondepressed-mood subjects. These results are consistent when one considers that the depressed-mood subjects were significantly more intimate in both conditions. The confederates reported higher levels of negative affect after their interactions with subjects in the intimate condition, and higher levels of negative affect after their interactions with depressed-mood subjects in both intimacy conditions. Once again, these two findings are consistent given that the depressed-mood subjects' disclosure was more intimate in both conditions.
This pattern of results is unusual given that previous studies of nondysfunctional groups have found a relationship between social activity and either positive or negative affect, but not both (e.g., Clark & Watson, 1988; McIntyre et al., 1991; McIntyre et al., 1990). It is plausible that these results are due to the manipulation of intimacy within a factorial design. Partial support for this position could be found in a study by Clark and Watson (1988), which found that positive social interactions such as parties or dinners are related to higher levels of positive affect, but that negative interactions such as arguments or hassles are related to higher levels of negative affect. One could speculate that positive affect and negative affect may be simultaneously and differentially affected in interpersonal situations that vary in terms of their intimacy. These results suggest that certain situations or types of individuals create almost an emotional double bind for their participants, or partners. The participants not only experience an increase in their sense of pleasurable involvement, they also experience an increase in their level of general distress. This push-pull scenario did not lead to immediate rejection of subjects but one could speculate that prolonged, or continual exposure to affectively discordant states may eventually lead to the negative evaluation of one's partner.

In addition to displaying different, and arguably specific patterns of inappropriate disclosure, the results in this section indicate that socially anxious and depressed-mood individuals may evoke very different responses in their partners during interpersonal situations. The socially anxious subjects were rejected by their partners while the depressed-mood subjects were not. It is becoming increasingly clear that a partner's liking for, and desire to affiliate with subjects during first acquaintance face-to-face interactions is negatively affected by level of social anxiety (e.g., Meleshko & Alden, 1993).
but not by level of depression (e.g., McNeil et al., 1987; Rosenblatt & Greenberg, 1991).

In addition to affiliation, however, there is the question of whether anxious or depressed individuals induce negative mood in those with whom they interact. There was no apparent relationship between social anxiety and confederate affect, indicating that the anxious subjects did not induce more, or less, positive or negative affect in their partners. Depressed individuals on the other hand, evoke both positive and negative affect in those with whom they interact. Interestingly, the confederates in this study tended to exhibit both a greater sense of pleasurable engagement as well as an increase in their general distress as a result of their interactions with the depressed-mood individuals. In essence, one could speculate that they found their interactions with the depressed-mood subjects emotionally arousing, but in a somewhat negative sense. This may in part explain the bewildering array of previous results in this area: Some apparently conflicting results may not be conflicting after all, but reflect the different proportions of positive or negative affect measured by the mostly unidimensional mood instruments that have been used in most previous studies.
Conclusions

Interpersonal Theories

Many individuals who seek treatment for depression-, and anxiety-related conditions also report interpersonal problems. When we examine the results of this study, it becomes apparent that both anxious and depressed-mood subjects exhibited different, and distinctive patterns of disclosure. When one considers that this behavior is different, in a normative sense, and that these individuals often report interpersonal difficulties, it seems possible that these behaviors are not only different, but inappropriate and maladaptive. Whether these patterns of interpersonal behavior are causal to, or resultant from the interpersonal difficulties that these groups often experience is unclear. In either case, it suggests that both anxious and depressed individuals exhibit maladaptive interpersonal behaviors that may play a major role in their disorders.

A number of individuals have recently suggested that an interpersonal model may have utility for examining the behaviors of individuals who are anxious and depressed (e.g., Alden, Bieling, & Meleshko, In Press). Although there are a number of specific interpersonal models there are two central tenets to virtually all theories of maladaptive interpersonal behavior:

1) Interpersonal behavior is reciprocal in the sense that one individual's behavior pulls for reciprocal and complementary responses from others, and
2) People with interpersonal problems are locked into self-defeating cycles of interpersonal behavior in which the individual's cognitive-emotional reactions to social situations leads him or her to engage in interpersonal actions that evoke negative reactions from others (Strupp & Binder, 1984).

A number of recent approaches to depression emphasize the importance of interpersonal processes in the course of the disorder (e.g., Coates & Wortman,
Perhaps the model that has received the most theoretical and empirical attention is that of Coyne (1976b) who suggested that the behavior of depressed people elicits a characteristic type of negative social response from others that serves to maintain the depressive state. Coyne suggested that the depressed person's tendency to complain evokes nongenuine displays of reassurance from others, and a subsequent tendency to avoid the depressed person. Depressed people accurately perceive this, and in their need to maintain their increasingly uncertain security and to control the behavior of others, display more symptoms and convey more distress, evoke still more negative responses, and so on, in a cyclical process. One of the main suppositions of Coyne's interpersonal model, and a contrast with cognitive theories of depression concerns the accuracy of the depressed individuals social perception. Coyne argued that the depressed individual is able to accurately perceive the rejection and hostility of others. Although Coyne (1976a) found that depressed patients were negatively evaluated by others, his study did not determine why this happened. He speculated that "...the solution may lie in the non-reciprocal, high disclosure of intimate problems." (Coyne, 1976a, pg 193). The results of this study suggest that he was very close to the truth. It would appear that although reciprocity may not be an issue, the disclosure of highly intimate, negatively valanced material may be.

In general, the results of recent studies (e.g., Dobson, 1989; McNeil et al., 1987; Rosenblatt & Greenberg, 1991) fail to support Coyne's (1976a) finding that depressed individuals are rejected by others during face-to-face initial meeting interactions. These types of results are often viewed as contraindicative of an interpersonal model of depression as some individuals have interpreted Coyne's, and other interpersonal models as suggesting that
this negative reaction occurs in a consistent fashion across all relationships. However, others (e.g., Marcus & Nardone, 1992; McNeil et al., 1987) have suggested that it may be a developmental progression across the spectrum of interpersonal relationships. They suggest that others may initially respond with support and reassurance to the message communicated by the depressive, and only over time become rejecting and feel negatively toward the depressed person. Burchill and Stiles (1988) suggest that it is indeed interactions with intimates, and potentially negative reactions during these interactions, that are responsible for maintaining depression. In general, the research which has examined the interactions of depressed individuals in long-term relationships tends to provide consistent support for Coyne's model of depression. It finds that depressed individuals incur a variety of strong, negative reactions among both their spouses and families (e.g., Coyne, Kessler, Tal, Turnbull, Wortman, & Gredon, 1987; Hops, Biglan, Sherman, Arthur, Friedman, & Osteen, 1987) and those they are in long-term relationships with, for example, roommates (e.g., Burchill & Stiles, 1988; Hokanson, Rubert, Welker, Hollander, & Hedeen, 1989).

It would appear possible that in addition to the nature of the relationship the situational determinants of the interaction would also influence whether a negative reaction was induced in others. Burchill and Stiles (1988) speculated that the boundary conditions for the interactions of depressed individuals are important, for example, the length and setting of the interaction, the perceived interactional task, and the intimacy and involvement in the relationship. Therefore, it is possible that the conflicting results about the reactions of others to depressed individuals are not conflicting at all. Rather, they are simply "snapshots" of different situations along a continuum of interpersonal relationships. The dynamics of
a first-meeting or acquaintanceship interaction would seem to be quite different from those in established and/or intimate relationships. The results of this, and other first-meeting studies which find that partners do not reject depressives, should not be viewed as disconfirming an interpersonal model of depression. Rather, they suggest that depressives are not rejected by others during first-meetings, nor even perhaps during the initial process of developing a more intimate, long-term relationship.

As to the mechanism by which the change in evaluation of depressives occurs, this study suggests that depressed individuals may evoke mixed emotional reactions in others when they first meet them, almost a type of emotional double bind. Initially, perhaps because of the conveyed intimacy, others find the interactions exciting, emotionally arousing, but also somewhat distressing. One can speculate that the continual negative, intimate disclosure of depressed individuals which increases both pleasurable engagement and general distress in their partners may cause the evaluation of them to change over time.

In their extensive review of the literature and examination of the interpersonal aspects of depression, Marcus and Nardone (1992) suggested that an interpersonal model, including Coyne's, may not be unique to depression. They suggested that negative evaluation and rejection may be more a function of interactions with individuals who are distressed, or behave in an interpersonally different manner, than it is a specific reaction to depression. The results of this study would tend to support an extension of an interpersonal model to encompass social anxiety as well as depression. All of the combinations of psychologically distressed subjects in this study: anxious, depressed-mood, and anxious/depressed-mood exhibited different, maladaptive patterns of disclosure, arguably one of the most important
interpersonal behaviours. The anxious subjects exhibited a pattern of nonreciprocal disclosure which was moderated in terms of intimacy and reduced in amount. Not only did their pattern of disclosure vary from that displayed by the depressed-mood subjects, so did the reactions of their partners. Anxious subjects were rejected by their partners, who seemed to experience little in the way of emotional arousal, either positive or negative, in reaction to the social encounter. These results are quite similar to those obtained by Meleshko and Alden (1993) who found that socially anxious individuals exhibited maladaptive, moderated patterns of disclosure and evoked less liking in their conversational partners than nonsocially anxious people. One could extend Marcus and Nardone's conceptualization further and speculate that although an interpersonal model can encompass both depression and anxiety, such a model does not necessitate that both types of individuals exhibit the same pattern of maladaptive interpersonal behavior, nor that they incur the same pattern of rejection, only that they do exhibit inappropriate patterns of interpersonal behavior and are rejected by others at some point on a continuum of relationship development. It is possible that moderated, nonreciprocal disclosure by anxious individuals leads to immediate negative evaluation and rejection by partners, as compared to the gradual, time-bound rejection incurred by the overly intimate, negative disclosure of depressed individuals.

Social Motivation

Also of interest here are the reasons why socially anxious and depressed-mood individuals exhibit the specific patterns of inappropriate disclosure that they do. One possibility would be that these individuals suffer from some type of behavioral deficit, that they lack the skill to respond in a
socially appropriate manner. However, both Meleshko and Alden (1993) and this study found that socially anxious subjects were capable of a range of disclosure, both intimate and nonintimate. It would appear that their difficulties would be best characterized as nonreciprocity, or inappropriateness rather than some type of absolute deficit. Similarly, Gibbons (1987) found that depressed subjects were capable of both intimate and nonintimate, as well as positively and negatively valanced disclosures and concluded that if the depressed individual responds in an intimate, negative fashion, it is by choice. Given that a behavioral deficit model appears to lack explanatory power, why do anxious and depressed individuals exhibit dysfunctional patterns of disclosure?

Cunningham and Strassberg (1981) suggested that reciprocal disclosure was dependent on two processes in addition to behavioral skill, namely the individuals' social perception, or ability to accurately assess the disclosure of self and partner, and their motivation to reciprocate the disclosure. In terms of motivation, Arkin (1981) postulated that in social interactions, two motivational processes are operative, which he labelled acquisitive and protective. Acquisitive self-presenters are motivated by a desire to gain social acceptance and approval and are characterized by socially facile and adept behavior. Protective self-presenters, on the other hand, are motivated by a desire to avoid disapproval and/or negative social outcomes and adopt self-protective strategies of self-presentation. As a result, they exhibit behaviours that are characteristically subdued or moderate, allowing them to avoid attention until certain that disapproval is unlikely. Arkin proposed that socially anxious individuals subscribe to both motive systems, however, self-protective concerns take precedence and direct their behavior in first meeting situations. Meleshko and Alden (1993) found that although nonanxious
individuals were motivated solely by acquisitive concerns, socially anxious individuals reported similar levels of both acquisitive and protective concerns, even though their behavior in a first meeting situation with a stranger was consistent with a protective motivation.

Although Arkin (1981) developed his motivational model in the context of social anxiety, some writers have suggested that self-protective concerns also characterize depressed individuals and direct their behavior (e.g., Hill et al., 1986; Weary, 1988; Weary & Williams, 1990). Both Hill et al. (1986) and Weary and Williams (1990) found that dysphoric subjects withdrew from tasks more quickly than nondysphoric people. These writers concluded that as a result of their self-protective concerns, depressed individuals were willing to risk short-term disapproval in order to avoid future demands and/or losses in self-esteem. If depressives are motivated by self-protective concerns, however, why would the depressed subjects in the present study disclose more intimate and more negative topics than nondepressed subjects rather than talking little and withdrawing from the interaction, just as the socially anxious subjects did? One possibility is that by disclosing overly intimate, negative topics, depressives were seeking to drive others away to avoid future demands and losses in self-esteem. However, this explanation is inconsistent with most current interpersonal models of depression, which emphasize the depressive's desire for support, reassurance, and nurturance from others (e.g., Coyne, 1976). Such an explanation also involves a complex chain of events in which the depressive, who wants to end relationships before they develop to avoid future demands and losses in self-esteem, actually talks more and about more intimate topics, with the plan of driving others away.

It is difficult to reconcile the different patterns of disclosure associated with social anxiety and depression in this study within the
framework of Arkin's current self-protective model of social anxiety. However, a reconceptualization of Arkin’s motivational model would accommodate the different behavioral patterns observed here. There are three key components that must be clearly distinguished and addressed in this model: 1) Motivation, 2) Goal, and 3) Behavior. If we view the motivation of acquisitive self-presenters as positively enhancing the self to others, to make the self a "desirable commodity" so to speak, we can then view the desire to gain social acceptance and approval as their goal, rather than their motivation. To obtain their goals of social acceptance and approval, acquisitively motivated individuals exhibit behaviours which are socially facile, adept, and appropriate. On the other hand, socially anxious protective self-presenters would be individuals motivated by the desire to protect, or preserve the self. As their goal they want to avoid disapproval and/or negative social outcomes. In pursuit of this goal, they adopt a behavioral conservatism by exhibiting behaviours which are unlikely to be disapproved of, or perhaps even noticed by others.

When we reconceptualize Arkin's model, it allows for the behavior of depressed individuals to be incorporated. Although depressed individuals are also motivated by protective concerns, they want to protect the self, it does not mean that this motivation must of necessity have the same goals, or behaviours to meet those goals, as does the protective motivation of anxious individuals. Rather than avoiding disapproval, the goal of depressed individuals might be to elicit sympathy or caretaking from others. The behaviours that they choose to accomplish this goal may be to pour out their concerns and complaints to others in hopes of eliciting sympathy and concern.
Social Perception

Although I have discussed the social motivational implications of the patterns of disclosure in this study, that is not to suggest that it is the only possible explanation. It would appear that differences in social perception, specifically inaccuracies or biases in the processing of their own or their partner's behavior, could account for this pattern of results. However, there were no main effects for anxiety or depressed-mood, or interaction effects, on the measure of the subjects' perception of their partners' intimacy. This indicates that subjects clearly perceived the confederate in the high intimacy condition as more intimate, revealing, and personal than the one in the low intimacy condition, including depressed-mood and socially anxious subjects. Therefore, it appears that different patterns of disclosure were not associated with distorted or inaccurate perceptions of others' behavior in this study, at least on the single dimension measured. This is consistent with the results of a previous study for anxiety (Meleshko & Alden, 1993). However, it should be noted that both that study, and the current one, were restricted in their measures of social perception and it is possible that more sensitive measures of perception would have revealed differences.

In terms of depression, the results of this study suggest that the depressed-mood subjects accurately perceived their partner's level of intimacy, indicating no distorted or biased other perception on this dimension. In general, the depression literature reveals a mixed pattern of results in terms of the accuracy of depressed individuals' social perception. Some studies have found a negative distortion or bias (e.g., Dobson, 1989; Gotlieb, 1983; Hokanson, Hummer, & Butler, 1991), some have found less accuracy but no systematic negative bias (e.g., Hollander & Hokanson, 1988;
Loewenstein & Hokanson, 1986), but others have found no distortion or discrepancy in their processing of interpersonal information (e.g., Strack & Coyne, 1983; Vestre & Caulfield, 1986). A number of recent studies have suggested that neither depressed nor nondepressed individuals evidence superior accuracy across all dimensions and contexts of social perception (e.g., Campbell & Fehr, 1990; Pietromonaco, Rook, & Lewis, 1992). Based on this conflicting array of evidence, it appears that the best conclusion is that depressives may be as, or less accurate than nondepressives in their social perception depending on the context. In this study, however, they exhibited unusual patterns of disclosure even though they accurately perceived the nature of the confederates' disclosure. One could speculate that this suggests that a social perception model may provide a less complete explanation than does a social motivational model, but this will remain for future research to determine. It must be kept in mind however, that even the presence of distortions or inaccuracies in social perception would fit within a motivational model of self-presentation (Meleshko & Alden, 1993). Both Arkin et. al. (1986) and Millon (1981) suggest that self-protective activities may deprive individuals of necessary and important social feedback, feedback that might be necessary for the development of accurate social perception.

Tripartite Model

Clark and Watson (1991) suggest that anxiety and depression can be differentiated on the basis of factors specific to each syndrome and further, propose that a new diagnostic category of mixed anxiety-depression be created. They suggest that by utilizing a tripartite structure consisting of general distress (negative affect), physiological arousal, and anhedonia (positive
affect), the three disorders of anxiety, depression, and mixed anxiety-depression, can be reliably and validly differentiated and diagnosed.

An extension of the Tripartite model to behavior would suggest the depressed-mood, socially anxious, and mixed groups should have distinctive profiles on the dependent measures. The measures of disclosure however, appear to partly reflect both the salience of depression, and the specificity of disclosure that would be consistent with a tripartite model of anxiety and depression. The cell means reveal that the mixed group closely approximated the behavior of the depressed-mood subjects on five of the seven measures of disclosure: Rate of Speech, Jourard Intimacy, Rated Intimacy, Content Valence, and Rated Reciprocity. The mixed group fell inbetween the other two groups on two measures: Duration and Jourard Reciprocity. On none of the seven measures did their behavior more closely resemble that of the socially anxious subjects. Thus, overall, depressed-mood exerted greater influence on self-disclosure than did anxiety. However, the fact that the mixed group was behaviorally distinct on other measures indicates that anxiety had some influence as well.

The differences in the subjects' preinteraction levels of affect and arousal were also only partly consistent with a tripartite model. These can be seen in Table 22 which presents the mean scores for the various groups.
Table 22. Means for Preinteraction Levels of Affect and Physiological Arousal

<table>
<thead>
<tr>
<th></th>
<th>Positive Affect</th>
<th>Negative Affect</th>
<th>Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonanxious</td>
<td>Nondepressed-M</td>
<td>29.68</td>
<td>12.38</td>
</tr>
<tr>
<td></td>
<td>Depressed-M</td>
<td>25.05</td>
<td>19.10</td>
</tr>
<tr>
<td>Anxious</td>
<td>Nondepressed-M</td>
<td>27.08</td>
<td>14.65</td>
</tr>
<tr>
<td></td>
<td>Depressed-M</td>
<td>22.68</td>
<td>20.42</td>
</tr>
</tbody>
</table>

For the most part, the depressed-mood and mixed groups exhibited a pattern of affect that would be consistent with a tripartite model: low positive affect and high negative affect, perhaps even more exacerbated in the mixed group, although not significantly so. However, the mixed groups levels of physiological arousal were not significantly higher than those of the depressed-mood subjects as one would expect given the postulates of a tripartite model. Although the socially anxious subjects levels of positive affect would be consistent with a tripartite model, their levels of negative affect are higher than those of the control subjects, but substantially lower than those of the depressed-mood and mixed groups. Given that high negative affect is postulated as the common general factor in both anxiety and depression this result can be viewed as somewhat problematic for a tripartite model. Clark and Watson (1991) do suggest, however, that levels of negative affect may be lower in individuals with highly circumscribed anxiety disorders such as simple phobias where the distress would tend to be situational rather than pervasive. Another problem for a tripartite model is that socially anxious subjects reported levels of physiological arousal substantially lower than either of the depressed-mood groups. As physiological arousal is
suggested as being specific to anxiety by the tripartite model, this result could be viewed as failing to provide support for the model.

One explanation for the failure of the current results to conform to the tripartite model of anxiety and depression may be the subject selection variable, social anxiety, that was used in this study. Clark and Watson (1991) deal primarily with general anxiety in their model. Although measures of social anxiety display moderate correlations with measures of generalized anxiety (Watson & Clark, 1984), they are not identical. In addition, subjects were selected on the basis of scores on the BDI and SAD, rather than on the PANAS. It will remain for future research to determine whether interpersonal behaviours are consistent with the theoretical aspects of the tripartite model of anxiety and depression.

Cautions

The conclusions reached, and inferences made by the author must be qualified due to a number of limitations of the present study. First, although the paradigm contained a face-to-face interaction which closely approximated a first-meeting situation, it was, nonetheless, a somewhat structured and artificial interaction. In addition, it represents only one of a potential range of social-evaluative interactions into which individuals enter and it remains for future studies to determine whether the appropriate patterns are found across a variety of interpersonal situations. A more stringent limitation on generalizability is the fact that all the subjects and confederates were women. While there is no a priori reason to believe that a similar pattern of results would not be obtained for mixed or male dyads, once again this cannot be assumed. Although the current study utilized two subject selection variables, social anxiety and depressed-mood, it still remains
possible that some unknown third factor would allow for a more concise interpretation of the results.

Another limitation is that subjects were students selected on the basis of self-report measures of socially anxious or depressed symptoms rather than patients meeting formal diagnostic criteria. Although the current study has attempted to utilize terminology to reflect this, depressed-mood rather than depression, and social anxiety rather than social phobia or avoidant personality disorder, clearly the ultimate goal of this avenue of research is a greater understanding of individuals with clinical levels of these disorders. I would caution that this distinction be remembered by others generalizing the results of this study and recommend that future research in this area attempt to address these issues in clinical populations.

Summary

In summary, this study examined patterns of interpersonal behavior and reaction in socially anxious and depressed-mood women college students and their partners. The results indicated that the anxious and depressed-mood subjects exhibited different, and specific patterns of inappropriate disclosure. The disclosure of the socially anxious subjects was reduced in amount, and nonreciprocal as they revealed information that was moderated in its intimacy. There was no difference in its valence, however, it was neither more positive nor more negative than that of the nonanxious subjects. On the other hand, the depressed-mood subjects exhibited a greater amount of disclosure that was more intimate, and more negative than that of the nondepressed-mood subjects.

The subject's levels of positive affect, negative affect, and physiological arousal indicated that they varied on these measures as a
function of their status and that the interaction had very different effects for the different types of subjects. Prior to the interaction, the socially anxious subjects were characterized by lower levels of positive affect and higher levels of negative affect. The interaction had what could best be viewed as a negative effect on them, their low levels of positive affect and high levels of negative affect did not change, but their levels of physiological arousal increased. The depressed-mood subjects reported lower levels of positive affect, and higher levels of negative affect and physiological arousal prior to the interaction. The interaction appeared to have very positive benefits for them, however, as their levels of positive affect increased and their levels of negative affect decreased. The significant and systematic differences in the subjects' patterns of positive affect, negative affect, and physiological arousal both before, and as a result of the interaction provide partial support for a tripartite model of anxiety and depression.

The results showed that although their partners were more rejecting of the anxious subjects in the high intimacy condition, they did not negatively evaluate the depressed-mood subjects. It is becoming increasingly clear that negative evaluation of one's partner is not affected by level of depression during first-meeting, face-to-face interactions, but that it is affected by level of social anxiety. The socially anxious subjects evoked neither more positive nor more negative affect in their partners. The results did suggest, however, that the issue of negative mood induction in their partners by depressed individuals may be more complex that previously conceptualized. The depressed-mood subjects aroused higher levels of both positive and negative affect in their partners, suggesting that the interactions with these subjects were emotionally arousing but in a negative sense.
The results of this, and other recent studies were interpreted within an interpersonal model of depression that was extended to include anxiety and interpreted as spanning a developmental continuum of interpersonal relationships. It was suggested that socially anxious individuals display inappropriate interpersonal behaviours which evoke immediate rejection from others they first meet. However, once involved in a long-term or intimate relationship, the rejection by others may lessen or abate. On the other hand, depressed individuals may not evoke rejection in those they first meet despite their inappropriate behavior. The continual display of this behavior, however, may cause them to be rejected at a later point in the relationship.

The study also examined why anxious and depressed-mood individuals exhibit, or perhaps have developed, the specific patterns of inappropriate interpersonal behavior they have. Arkin's (1981) social motivational model was somewhat reconceptualized in terms of its three basic tenets of motivation, goal, and behavior. Specifically, it was suggested that both anxious and depressed-mood individuals are motivated by protective concerns, they want to protect, or preserve the self. As a result of their motivation to protect the self, the socially anxious individual's goal is the avoidance of disapproval and/or negative social outcomes. In pursuit of this goal they adopt a behavioral conservatism. Depressed-mood individuals are also motivated by a desire to protect the self, but they have as their goal the obtainment of sympathy and reassurance from others. Their behavioral response is the inappropriate disclosure that they may feel will elicit support and forestall rejection.
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Appendix 1.

INSTRUCTIONS

When people meet and begin to get to know each other they usually do it by talking about themselves. This involves both speaking and listening. In this study, we are looking at different conversational strategies that people use when they first meet someone. We would like you to get to know each other, to talk about yourself and listen as your partner talks about herself so that you become better acquainted.

We need to structure this somewhat, so what we would like you to do is to take turns talking and listening. I will give you a list of topics to talk about. The person with the higher identification number will go first. That person will choose one of the topics and talk briefly about it. The other person's task is to listen. Then the other person will choose a topic and talk about it and the person who spoke first now becomes the listener. We ask that you do not speak or ask questions when it is your turn to be the listener. As well, when you have said all you have to say on a topic, maybe let your partner know by saying something like "finished" or "your turn". You will continue to alternate back and forth until you have both chosen and spoken on 4 topics. As you choose each topic, please place a number beside it indicating whether it was the first one you picked, the second, etc.

As I said, we want you to get to know each other. Please be as honest and open as you can. Try to be as straightforward and truthful with the other person as you hope they will be with you.
Appendix 2.

1. What are your views on the way a husband and wife should live their marriage?

2. What are your usual ways of dealing with depression, anxiety and anger?

3. What are the actions you have most regretted doing in your life and why?

4. What are the ways in which you feel you are most maladjusted or immature?

5. What are your guiltiest secrets?

6. What are the habits and reactions of yours which bother you at present?

7. What are the sources of strain and dissatisfaction in your relationship with the opposite sex (or your marriage)?

8. What are your favourite forms of erotic play and sexual lovemaking?

9. What are your hobbies, how do you best like to spend your spare time?

10. What were the occasions in your life on which you were the happiest?

11. What are the aspects of your daily life that satisfy and bother you?

12. What characteristics of yourself give you cause for pride and satisfaction?

13. Who are the persons in your life whom you most resent; why?

14. Who are the people with whom you have been sexually intimate. What were the circumstances of your relationship with each?

15. What are the unhappiest moments in your life; why?

16. What are your preferences and dislikes in music?

17. What are your personal goals for the next 10 years or so?

18. What are the circumstances under which you become depressed and when your feelings are hurt?

19. What are your most common sexual fantasies?
Appendix 3.

INSTRUCTIONS

These items deal with certain bodily sensations you may or may not be experiencing right now. Read the following items and indicate to what extent you are experiencing each of the sensations by circling the appropriate number.

For example, on item 1, if you feel no pressure in your chest you would circle a 1. If you feel a fair amount of pressure, you might circle a 4 or 5. If you feel a lot of pressure, you would circle a 7.

PLEASE BE SURE THAT EVERY ITEM IS ANSWERED.

Pressure in chest:
not at all 1 2 3 4 5 6 7 very much

Heart beating faster:
not at all 1 2 3 4 5 6 7 very much

Feeling short of breath:
not at all 1 2 3 4 5 6 7 very much

Butterflies or knot in stomach:
not at all 1 2 3 4 5 6 7 very much

Lump in throat:
not at all 1 2 3 4 5 6 7 very much

Sweating:
not at all 1 2 3 4 5 6 7 very much

Dry throat:
not at all 1 2 3 4 5 6 7 very much
Appendix 4.  

INSTRUCTIONS 

These items deal with certain bodily sensations you may or may not have been experiencing during the conversation you just had with your partner. Remember when completing these questions to answer according to how you felt during the conversation, NOT according to how you now feel. 

Read the following items and indicate to what extent you were experiencing each of the bodily sensations by circling the appropriate number. 

For example, on item 1, if you felt no pressure in your chest during the conversation you would circle a 1. If you felt a fair amount of pressure, you might circle a 4 or 5. If you felt a lot of pressure, you would circle a 7. 

PLEASE BE SURE THAT EVERY ITEM IS ANSWERED. 

Pressure in chest: 
not at all 1 2 3 4 5 6 7 very much 

Heart beating faster: 
not at all 1 2 3 4 5 6 7 very much 

Feeling short of breath: 
not at all 1 2 3 4 5 6 7 very much 

Butterflies or knot in stomach: 
not at all 1 2 3 4 5 6 7 very much 

Lump in throat: 
not at all 1 2 3 4 5 6 7 very much 

Sweating: 
not at all 1 2 3 4 5 6 7 very much 

Dry throat: 
not at all 1 2 3 4 5 6 7 very much
Appendix 5.

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, that is, at the present moment. Use the following scale to record your answers.

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<tr>
<td>1</td>
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<td>4</td>
<td>5</td>
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<tr>
<td>very slightly or not at all</td>
<td>a little</td>
<td>moderately</td>
<td>quite a bit</td>
<td>extremely</td>
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</table>

- ___ interested
- ___ distressed
- ___ excited
- ___ upset
- ___ strong
- ___ guilty
- ___ scared
- ___ hostile
- ___ enthusiastic
- ___ proud

- ___ irritable
- ___ alert
- ___ ashamed
- ___ inspired
- ___ nervous
- ___ determined
- ___ attentive
- ___ jittery
- ___ active
- ___ afraid
Appendix 6.

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you felt this way during the conversation, that is, when you were talking to your partner. Use the following scale to record your answers.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
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<tbody>
<tr>
<td>very slightly or not at all</td>
<td>a little</td>
<td>moderately</td>
<td>quite a bit</td>
<td>extremely</td>
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<tr>
<td>__ interested</td>
<td>__ distressed</td>
<td>__ excited</td>
<td>__ upset</td>
<td>__ strong</td>
</tr>
<tr>
<td>__ guilty</td>
<td>__ scared</td>
<td>__ hostile</td>
<td>__ enthusiastic</td>
<td>__ proud</td>
</tr>
<tr>
<td>__ irritable</td>
<td>__ alert</td>
<td>__ ashamed</td>
<td>__ inspired</td>
<td>__ nervous</td>
</tr>
<tr>
<td>__ determined</td>
<td>__ attentive</td>
<td>__ jittery</td>
<td>__ active</td>
<td>__ afraid</td>
</tr>
</tbody>
</table>
Appendix 7.

PARTNER RATING

We are interested in how you feel about your partner. Please rate your partner on each of the items below by circling the number which best describes how you feel.

Your ratings are completely confidential. THE OTHER PERSON WILL NOT SEE THESE RATINGS, so try to be as frank and honest as you can. BE SURE THAT EVERY ITEM IS ANSWERED.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>definitely not</td>
<td>probably not</td>
<td>probably yes</td>
<td>definitely yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

___ Would you like to meet this person again?
___ Would you like to spend more time with her in the future?
___ Would you like to work with this person in the future?
___ Would you like to sit next to her on a 3 hour bus ride?
___ Would you invite this person to visit you?
___ Would you like to have this person as a friend?
___ Would you ask this person for advice?
___ Would you consider sharing an apartment with this person or having her for a roommate?

We have some other questions about your partner's behavior during the conversation that we would like you to answer:

1. How intimate was the information that your partner disclosed during the interaction?

    1 | 2 | 3 | 4 | 5 | 6 | 7
    not intimate | intimate

2. How revealing was your partner during the interaction? That is, how much information about herself did she reveal?

    1 | 2 | 3 | 4 | 5 | 6 | 7
    not revealing | revealing

3. How personal and private was the information that your partner gave you?

    1 | 2 | 3 | 4 | 5 | 6 | 7
    not personal | personal
Appendix 8. **RATINGS OF THE SUBJECT**

How **INTIMATE** were the subject's disclosures?

<table>
<thead>
<tr>
<th>Disclosure</th>
<th>Scale</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very intimate</td>
</tr>
<tr>
<td>Second Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very intimate</td>
</tr>
<tr>
<td>Third Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very intimate</td>
</tr>
<tr>
<td>Fourth Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very intimate</td>
</tr>
</tbody>
</table>

To what extent could the content of the subject's disclosures be described as **POSITIVE OR NEGATIVE**?

<table>
<thead>
<tr>
<th>Disclosure</th>
<th>Scale</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very positive</td>
</tr>
<tr>
<td>Second Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very positive</td>
</tr>
<tr>
<td>Third Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very positive</td>
</tr>
<tr>
<td>Fourth Disclosure</td>
<td>1 2 3 4 5 6 7</td>
<td>very positive</td>
</tr>
</tbody>
</table>

1. Overall, to what extent could the content of the subject's disclosure be described as **INTIMATE** or **NONINTIMATE**?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Scale</th>
</tr>
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<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>very intimate</td>
</tr>
</tbody>
</table>

2. Overall, to what extent could the content of the subject's disclosure be described as **NEGATIVE** or **POSITIVE**?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Scale</th>
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<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>very positive</td>
</tr>
</tbody>
</table>
Appendix 9.

RATINGS OF THE SUBJECT

We would like to get some idea how you felt about the subject. Answer the following questions according to the scale below. Put the number that best describes how you feel in the blank next to the question.

1 2 3 4 5 6 7

definitely not probably not probably yes definitely yes

Would you like to meet this person again?
Would you like to spend more time with her in the future?
Would you like to work with this person in the future?
Would you like to sit next to her on a 3 hour bus ride?
Would you invite this person to visit you?
Would you like to have this person as a friend?
Would you ask this person for advice?
Would you consider sharing an apartment with this person or having her for a roommate?
Appendix 10.

EXPERIMENTER FORM

SUBJECT'S NUMBER: __________________________

CONDITION: _________________________________

CONFEDERATE'S NAME: _______________________

OBSERVER'S NAME: __________________________

<table>
<thead>
<tr>
<th>CONFEDERATE'S DISCLOSURE: TIME</th>
<th>SUBJECT'S DISCLOSURE: TIME</th>
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<tbody>
<tr>
<td>FIRST</td>
<td></td>
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<td>SECOND</td>
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<td>THIRD</td>
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<td>FOURTH</td>
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The subject's rate of speech, in the sense of how many words they spoke in a given amount of time could best be described as:

1  2  3  4  5
slow normal fast
Appendix 11.

Intimacy Scale Anchors

1. **Very Nonintimate**
The person talked about very superficial issues. She said nothing about herself that was of a personal, emotional, secret, or embarrassing nature. For instance, she discussed movies, music, what she is taking at university, what she does with her spare time, or superficial descriptions of herself and/or family.

3. **Somewhat Nonintimate**
The person talked about somewhat more personal issues, but not at an intimate level. Generally, she said very little about herself that was of a personal, emotional, secret, or embarrassing nature. For instance, she discussed career and familial goals, what her boyfriend is like, minor conflicts with her parents, or minor disagreements with her siblings.

5. **Somewhat Intimate**
The person talked about some fairly intimate issues, but tended to do so in a descriptive rather than an emotional or personal manner. She said things about herself that were quite personal, emotional, secret, or embarrassing, but perhaps not consistently so, or perhaps in a fashion that made you feel she was holding something back. For instance, she described her parents divorce, family problems, or failing at school without actually revealing her personal feelings and emotions.

7. **Very Intimate**
The person talked about some very intimate issues. She said things about herself that were of an extremely personal, emotional, secret, or embarrassing nature. For instance, she discussed relationship problems, serious conflicts with her parents, feelings of guilt or inadequacy, death of a family member, or aspects of her parents' divorce that bother her.
Appendix 12.  

CONTENT VALENCE ANCHORS

The middle of the scale (4) represents a neutral, average, everyday situation or experience. It is neither positive nor negative. The right half (5-7) of the scale represents positive, happy, or pleasant situations or experiences; the higher the number the more pleasant or positive it is. The left half of the scale (1-3) represents negative, unhappy, or unpleasant situations or experiences; the lower the number the more negative or unpleasant it is.

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<tr>
<td>very negative</td>
<td>moderately negative</td>
<td>mildly negative</td>
<td>neutral</td>
<td>mildly positive</td>
<td>moderately positive</td>
<td>very positive</td>
</tr>
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</table>

1. **VERY NEGATIVE**
They talked about a situation or experience which was clearly negative, unhappy, or unpleasant. There were no positive aspects at all to the situation or experience that the subject talked about. For example, they talked about negative aspects of their parent's divorce, how much they dislike or resent certain people, how upset they were by the death of someone, failing at university, how maladjusted they are, how immature they are.

3. **MILDLY NEGATIVE**
They talked about a situation or experience that was somewhat negative, unhappy, or unpleasant. It may have been a fairly neutral type of situation with some negative aspects to it, or, it may have been a situation that had both negative and positive aspects to it, but one where the negative aspects clearly outweighed the positive ones. For example, they talked about some minor difficulties they are having in a relationship, a poor mark on an exam, how annoying lineups are, a minor annoying habit they have.

5. **MILDLY POSITIVE**
They talked about a situation or experience that was somewhat positive, happy, or pleasant. It may have been a fairly neutral type of situation with some positive aspects to it, or, it may have been a situation that had both negative and positive aspects to it, but one where the positive aspects clearly outweighed the negative ones. For example, they talked about an upcoming skiing trip they are looking forward to, how much they are enjoying going to university, the hobbies they enjoy.

7. **VERY POSITIVE**
They talked about a situation or experience which was clearly positive, happy, or pleasant. There were no negative aspects at all to the situation or experience that the subject talked about. For example, they talked about obtaining a scholarship, their parents' getting back together, how loving and satisfying their relationship with their significant other is, the best friend they ever had.
Appendix 13.

Non-Intimate: First Disclosure

Topic #9: What are your hobbies; how do you best like to spend your time?

Read topic.

Well, there are a lot of things I like to do, but to tell you the truth, now that I've started university I don't have quite as much spare time as I used to.

Let's see ... I don't exercise very much... as far as working out or running...I think I'm just too lazy. But I do like some sports. In the winter I like to ski. I like baseball and play on a co-ed team. It's more of a "fun" league than a real competitive one, which is okay. I like the water and I love the sun and the beach. Whenever it's nice in the summer, I try to spend as much time as I can outside.

I like spending time with my friends, maybe going to a movie, or a club, or a party. The clubs are nice because you can dance, and I love dancing. But parties are nice too because it's easier to talk to people and get to know them.

I enjoy relaxing at home a lot as well. I like to read sometimes, fiction mostly.....although lately it seems that all I'm reading is textbooks. I guess my favourite author would be Danielle Steele. I'm pretty big on watching T.V., I try to never miss an episode of Cheers or Knots Landing.
Appendix 14.

Non-Intimate: Second Disclosure

Topic #16: What are your likes and dislikes in music?

Read topic.

I guess what I like to listen to really depends on the mood I'm in. I really like Lenny Cravitz....his concert was excellent. Guns and Roses aren't bad either....Oh, Rod Stewart is pretty good too. I really like U-2, they've got a lot to say.

I also really like some of the older music. I guess some of my favourites would be the Rolling Stones, the Doors, Led Zeppelin, and the Eagles.

I enjoy classical music if I'm in the right kind of mood. I don't listen to it very often, but it can be really relaxing once in a while. I like to play it in the background when I'm studying at home.

Let's see ...there are definitely some types of music that I'd rather not listen to. I don't like opera...I hate to say it...but I find it boring. That might be because I don't really understand it. I also never listen to really hard core heavy metal like Metallica, but some of the lighter stuff is okay.

What else don't I like... there's a lot of main stream stuff that I can't stand. All those top 40 stations just play the same songs over and over again. I completely despise Paula Abdul and Miriah Carey...they're just so whiny and irritating. Oh, and if there's one thing I absolutely can't stand its country music.

Well, I guess that's about it, ... your turn.
Appendix 15.

Non-Intimate: Third Disclosure

Topic #11: What are the aspects of your daily life that satisfy and bother you?

Read topic.

Well, one of the biggest aspects of my life right now is university. It's more interesting than high school. It's more challenging and you feel like you're learning something here. Mind you, Math 100 really sucks, but the rest of my courses are okay. I enjoy my English course, ... and my Psych course is pretty good too. I'm making new friends here and the profs aren't that bad. One thing I like is that no one tells you what to do. You can study or eat when you want.

It would be nice to have a car though; it's such a pain having to take the bus. It's always packed and you have to stand while it crawls through traffic. It wouldn't be as bad if you could get a seat, at least you could read. And the bus driver is always sitting there in his shirt, with the heat cranked up, while everyone else just about passes out. I have to get up earlier now too, which isn't very thrilling either. I'm not exactly a morning person.

I would really like to get a place of my own near the university. Then I wouldn't have to get up so early to take the bus.

Well, ... I guess that's about it.
Appendix 16.

Non-Intimate: Fourth Disclosure

Topic #17: What are your personal goals for the next ten years or so?

Read topic.

I guess everyone's goal is to get their degree. After that, well ... I'm not sure. I probably won't want to start working right away...I'd really like to do some travelling first. I've always wanted to go to Southeast Asia and Africa. After I graduate it would be great to spend 6 months in one place and then 6 months in the other. I've heard that Thailand is really great. My older brother was there for a few months and it sounded like he had a really good time. His pictures were wild......and it would be great to travel around as much of Africa as possible. Don't ask me how I'm going to afford all of this, but I really want to do it. I guess I'll probably wait and see what I feel like in my 4th year and then decide what to do.

I like Vancouver, and I'd like to stay here, but if I was offered a good job somewhere else I'd probably go. I could always move back later if I missed it.

Let's see, what else ... I'd like to get married some day, but not for a long time. It would be nice to finish school and be on my own for awhile first. I guess you could say my main priority is to do some travelling in the next 10 years.

Well, I guess that's about it.
Appendix 17.

High Intimacy: First Disclosure

Topic #7: What are the sources of strain and dissatisfaction in your relationship with the opposite sex?

Read topic.

I've been going out with the same guy for the past year now. We get along pretty well in a lot of ways; he's a university student too and we like a lot of the same things. But lately, I've started to wonder if we have as much in common as I thought we did.

He just doesn't seem ... very affectionate I guess. It really bothers me that he never gives me a kiss, or a hug, just on the spur of the moment. And in public, he never touches me, or lets me touch him, when there are other people around.

And even though we've been going out for a year, he just ... well ... doesn't seem very committed. I keep getting the feeling he fits me into his schedule, rather than fitting his schedule to us. Like, ... he'll cancel our plans if something comes up with the "guys". But he'll never cancel something with them if I really want to do something. I guess what it really is, is that he thinks in terms of "I", instead of "we".

Actually, I don't feel as close to him any more ... I don't feel like I care about him the way I used to. He's always saying we should maybe go out with other people. To tell you the truth, I think that might be a good idea. Considering how many good looking guys there are out there, I think I'm going to have a lot more fun than he thinks.
Appendix 18.

High Intimacy: Second Disclosure

Topic #5: What are your guiltiest secrets?

Read topic.

Let's see, my guiltiest secrets ... well I've always had this thing for whips and chains, [smile]. Only kidding, just checking to see if you're paying attention.

Actually it was something that happened last summer. I told my Mom that I was going camping to the Okanogan with my girlfriend for a couple of weeks, but I really went to Penticton with a bunch of my friends and our boyfriends. It was great! We'd spend all day on the beach suntanning and sleeping and then party all night. It was pretty wild. It was the first holiday I've even been on that I needed to rest up after.

I guess the reason I feel so guilty about it is because I lied to my Mom. We've always been open with each other and I've always been honest with her. It's almost like she's an older sister sometimes, as well as a mother. I've never lied to her before, at least not about something major. I'll probably tell her about it some day. I'm not sure when, but some day.

I guess that's not very "guilty", huh? The whips and chains thing probably would have been a lot more interesting [smile].
Appendix 19.

High Intimacy: Third Disclosure

Topic #10: What were the occasions in your life on which you were the happiest?

Read topic.

Actually, the happiest I've ever been has been the past month [pause; look down]. My mom and dad got back together again. [Look up] They've been separated for the past couple of years.

It's so nice to have a "family" again. Everybody's so happy; we're all walking around the house with smiles on our faces. My mom and dad seem really happy. They're always together; I think they really missed each other. They're always smiling and laughing, I haven't heard my mom laugh like that in ages. She's been like a different person since dad came back; she had been so "serious" and down all the time before. They're like a couple of kids, I keep catching them kissing and hugging all the time, sometimes in the strangest places. I'd never realized before the "romantic possibilities" a laundry room could have.

It sounds stupid, but even our dog seems happier. It's hard to describe; it's just nice to be around the house ... to have a family again. I've started to spend more time at home. I had started going out a lot because it just ... I don't know ... didn't feel right at home. But now it's just great.
Appendix 20.

High Intimacy: Fourth Disclosure

Topic #3: What are the actions you have most regretted doing in your life and why?

Read topic.

When my dad left, ... after my dad left, I refused to talk to him or see him. He used to come over for dinner once every couple of weeks, but I would always go out. When he phoned I wouldn't talk to him. My mom and sister said I should talk to him; they kept telling me that he loved me, but I just couldn't. I was so mad at him, I felt that everything was his fault. I couldn't understand why he wanted to hurt us, ... I convinced myself that he was having a great time going out with all sorts of exciting women. It got to the point where I felt that I really hated him.

Then when he moved back in, it was really awkward for a while. I was so happy that he was back, that our family was together again, but I was still angry with him. Finally, one night we had a real long talk. I started to realize that my mom was just as much to blame for the separation as he was. And I found out that he didn't have such a great time; he spent more time sitting at home crying than he did going out. And when I realized how much he loved me, and just how badly I'd hurt him, I felt pretty bad. We both started crying and I realized I really didn't hate him; I love him very, very much. We understand each other better, and we're closer now than we ever were, so I guess it wasn't all bad.
Appendix 21.

Confederate's Name: _____________________
Observer's Name: _____________________
Subject #: ____________

NON-INTIMATE

#1: Hobbies, How You Spend Your Time

____ started university
____ not as much spare time
____ don't exercise regularly
____ like sports
____ ski
____ play baseball
____ fun league
____ love the sun and the beach
____ spend time outside
____ spend time with friends
____ clubs; like dancing
____ parties; get to know people
____ read; fiction
____ Danielle Steele
____ watch Cheers and Knots Landing

#2: Likes & Dislikes in Music

____ depends on mood I'm in
____ Lenny Cravitz, excellent concert
____ Guns and Roses, Rod Stewart
____ U-2, got something to say
____ older music from 60's
____ Stones, Doors, Zeppelin, etc.
____ classical music occasionally
____ play it when I'm studying
____ types I'd rather not listen to
____ opera: boring
____ don't understand opera
____ don't listen to hard core metal
____ don't like some main stream stuff
____ despise Paula Abdul and Miriah Carey
____ can't stand country
#3: Daily Life

___ more interesting
___ more challenging, learning something
___ Math 100 sucks
___ enjoy English and Psych courses
___ making new friends
___ no one tells you what to do
___ study or eat when you want
___ nice to have car
___ bus is a pain
___ always packed, have to stand
___ nice to get seat
___ bus driver has heat cranked up
___ have to get up earlier
___ not a morning person
___ like to get a place near the university

#4: Personal Goals

___ get degree
___ won't start working
___ like to travel
___ South East Asia for 6 months; Africa for 6 months
___ Thailand is great
___ brother had a good time there
___ wild pictures
___ don't know how she'll afford it
___ decide in 4th year
___ like to stay in Vancouver
___ would move for a good job
___ could always move back
___ get married some day
___ like to be on my own for awhile
___ main priority is some travelling
Confederate's Name: ______________________
Observer's Name: ______________________
Subject #: ______________________

HIGH INTIMACY

#1: Problems With Boyfriend

___ going out for past year
___ get along pretty well
___ he's a university student
___ like the same things
___ started to wonder lately
___ doesn't seem affectionate
___ kiss or hug on spur of moment
___ no touching in public
___ doesn't seem committed
___ fits me into his schedule
___ cancelling plans
___ thinks I, not we
___ don't feel as close
___ go out with other people
___ good looking guys

#2: Guiltiest Secret

___ whips and chains
___ checking if you're paying attention
___ happened last summer
___ told mom about trip with girlfriend
___ went with boyfriends to Penticton
___ suntanning and sleeping on beach
___ partying all night
___ had to rest up after
___ guilty because I lied to mom
___ we've always been open and honest
___ like older sister
___ never lied about something major
___ tell her someday
___ not very guilty, huh
___ whips & chains better
#3: Happiest Occasion

- past month
- mom and dad back together
- separated for couple of years
- nice to have family again
- everybody is so happy
- walking around with smiles
- always together
- think they missed each other
- mom is laughing again
- mom is like a different person
- mom had been so serious
- like a couple of kids
- laundry room (romantic possibilities)
- even dog is happier
- spending more time at home

#4: Actions You Have Most Regretted

- refused to talk to or see dad
- go out when he came over for dinner
- refused to talk to him on phone
- mom & sister said "he loves you"
- mad; felt everything was his fault
- great time; going out with exciting women
- felt I hated him
- awkward when he moved back
- happy that he was back, but still angry
- long talk one night
- mom was as much to blame
- he didn't have great time; crying
- how much I loved him; how much I'd hurt him
- both started crying; really love him
- understand each other better and are closer