INTERPERSONAL DIFFERENCES IN SOCIOTROPIC AND AUTONOMOUS DYSTHYMIC SUBTYPES

by

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Abstract

The current study reviews theoretical and research evidence which links the concepts of sociotropy and autonomy to depression. The concepts of sociotropy and autonomy have been implicated as relevant factors in pre-disposing individuals to depression and as influencing the experience of depression; however, important postulated interpersonal differences have not been examined empirically. The current study explores theoretical interpersonal differences in sociotropic or autonomous dysthymic women. The motivational goals, interpersonal concerns, and other perceptions of sociotropic and autonomous individuals were assessed after an interpersonal interaction. Subjects who were found to be dysthymic and displayed excessive sociotropy or autonomy were asked to participate in a laboratory task with a confederate who acted either in a controlling or passive manner. Sociotropic subjects were more motivated by interpersonal goals in the interaction than autonomous subjects. Sociotropes were more dependent on their partners and felt that they had to rely on them to a greater extent for support, help, and advice; they also attempted to please their partner and were concerned about their partner's evaluation of them. These individuals felt their partner had evaluated them positively, was dependable, and was pleased with them. On the other hand, autonomous individuals felt that they were being intruded upon by their partner during the interaction, that their partner had acted in a controlling

manner, and that their partner had perfectionistic standards. Perceptions of others was independent of actual behaviour of interaction partners. Moreover, sociotropic subjects were better liked by confederates than were autonomous subjects and confederates rated sociotropics as more likeable. These results indicate that sociotropic individuals are more interpersonally oriented than autonomous individuals and that these individuals not only perceive others differently, but are perceived differently by others. Implications for interpersonal models of depression are discussed and the possible impact of these differences on the experience of depression are examined.

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Overview

Depression is one of the most frequently occurring psychological disorders, with a lifetime prevalence of between 3.7-6.7 percent in the general population (Robins, Helzer, Weissman, Orvaschel, Gruenberg, Burke, & Regier, 1984). Over a period of four years 6.7% of a sample of college students were diagnosed with depression, accounting for 80% of all psychiatric diagnoses made in the sample (Rimmer, Halikas, & Schuckit, 1982). The financial cost of depression in the United States alone was estimated to be 16.3 billion dollars per year (Stoudemire, Frank, Hedemark, Kamlet, & Blazer, 1986). More importantly there are grave human costs as well. Approximately 1 out of every 200 depressed persons commit suicide. (Minkoff, Bergman, Beck, & Beck, 1973).

The enormity of the problem has caused a great deal of interest and sparked much research. Many attempts have been made to link several personality factors with the experience of depression. The breadth and diversity of this research has made it difficult to reach any kind of consensus, but one important theme does seem to emerge. The commonality of much of this work lies in its themes of excessive autonomy and excessive dependency and their consequences for depression (Pilkonis, 1988). These themes and their connection to depression have emerged from a variety of theoretical perspectives including that of developmental, personality, psychodynamic, and cognitive psychology.

I will begin by reviewing the evolution of this excessive dependency/autonomy distinction and how it has been linked to depression. I will discuss how these issues are addressed by the variety of psychological perspectives from which they have arisen, the research that has been generated by this distinction, and then turn to questions that have been left unanswered to this point.

Theoretical Perspectives

Researchers from a broad variety of psychological traditions believe that two basic themes, excessive autonomy and excessive dependency, are etiologically related to the experience of depression (Arieti, & Bemporad, 1980; Beck 1983; Beck, Epstein, & Harrison 1983; Blatt, 1974; Blatt, D'Afflitti, & Quinlan, 1976; Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Bowlby, 1969, 1977, 1980). This distinction has been made both in the form taken by the depressive episode (Blatt, 1974; Blatt et al., 1976; Blatt et al., 1982) and when examining depression vulnerability factors in the form of a predisposing personality subtype (Arieti & Bemporad, 1980) or as a primary schema (Beck, 1983). I shall now turn to an examination of the autonomy/dependency distinction as made by workers from different psychological perspectives.

From a developmental perspective, Bowlby (1969, 1977, 1980) discussed "compulsively self-reliant" and "anxiously attached" individuals and how such individuals are prone to depression.

Bowlby believed that excessive self reliance was a defensive reaction to early frustrated, unfulfilled attachment needs and that anxious attachment was due to unreliable caregiver response that results in an extreme desire for interpersonal contact and fear that this will be withdrawn. These different patterns of early attachment behaviour are thought to form internal "models" and expectations regarding how other people behave. Such dysfunctional working models are hypothesized to be carried through until adulthood and thus predispose an individual to the experience of depression.

In the experience of adult depression, the dependency/autonomy distinction was first made by Blatt in 1974. The first type, revolving around excessive dependency, he termed anaclitic depression. It is characterized by feelings of helplessness, weakness, and depletion. The second type, based on excessive autonomy, he termed introjective depression. It is thought to be characterized by feelings of worthlessness, guilt, and a sense of having failed to live up to expectations or standards. Blatt believed that depression was caused by impairments in the development of object representation particularly as it regards relationships to attachment figures. Anaclitic depression is seen as originating in the oral stage of psychosexual development whereas introjective depression is believed to result from an overly critical superego.

More recently it has been hypothesized that the presence of excessive autonomy or dependency can also be vulnerability

factors in normal individuals who may be predisposed to experiencing depression (Blatt et al., 1976; Blatt et al., 1982). Based on research findings which will be discussed later in greater detail, Blatt et al. (1976) termed these factors dependency and self-criticism, with dependency involved in anaclitic depression and self-criticism involved in introjective depression.

Arieti and Bemporad (1980) made very similar distinctions based on an examination of two decades of psychotherapy with approximately 40 depressed patients. They point out that depression results when an individual is "...relying to a dangerous extent on external support to maintain self-esteem as well as avenues of meaning and gratification" (p. 1360). They distinguish between two types of excessive reliance, "dominant other" and "dominant goal", that can predispose one to depression. Dominant other corresponds to excessive dependency and is described as a pattern of relating to others that begins in childhood in which the person does not seek independent rewards but receives these through some significant other(s). Such persons are described as clingy, passive, manipulative, and anger avoidant (Arieti & Bemporad, 1980). Dominant goal corresponds to excessive autonomy. This pattern is also established in childhood when achievement is rewarded and the attainment of some lofty goal comes to be seen as the only way to gain support and acceptance. Achievement of the goal has broad and unjustifiable meaning attached to it, and these

individuals are seclusive, arrogant, and obsessive (Arieti &
Bemporad, 1980). These theoreticians argue that these patterns,
established in early childhood, shape and guide a person's
experience. Individuals thus interpret the world from their
unique perspective and their cognitive rigidity results in a
differential experience of life events. A negative event in the
relationship/achievement domains interacts with the person's
cognitive structure such that events that are congruent with
that person's pattern (dominant goal or dominant other) will
have more deleterious consequences than non-congruent negative
events (Arieti & Bemporad, 1980).

From a cognitive perspective, Beck (1983) describes
personality "modes" which he calls Sociotropy and Autonomy.
Sociotropy is described as "the person's investment in positive
interchange with others" (p. 272). Such individuals are
dependent on social feedback for gratification and support.
Autonomy is described as "the person's investment in preserving
and increasing his independence, mobility, and personal rights"
(p. 272). Such a person derives gratification from directing
his own activities and attaining meaningful goals. Beck writes
that individuals are very much capable of shifting from one mode
to another, but that people who become depressed show a
preponderance of one of the two clusters. He outlines symptom
clusters which would be associated more with one mode or the
other, outlines events that would precipitate depression in one
type or the other, and examines specific therapeutic foci for

both modes. We will return to examine some of these issues after reviewing the research that the dependency/autonomy distinction has spawned.

Theoretical propositions regarding the role of excessive dependency or excessive autonomy in depression have sparked a number of attempts to measure these constructs and examine how meaningful they are in the experience of depression. This research can be divided into several broad categories: (1) assessment of the constructs and development of appropriate measures, (2) attempts to link the constructs to the experience of depression, (3) attempts to examine vulnerability to depression by examining the effects of specific life events on individuals with excessive dependency or autonomy, and (4) attempts to describe individual differences between depressed individuals with excessive dependency or autonomy. We shall turn first to formal assessment of the dependency/autonomy distinction.

Measurement of the Dependency/Autonomy Constructs

There have been three major attempts to measure excessive autonomy and excessive dependency. The first was made from a psychodynamic point of view by Blatt (Blatt et al., 1976; Blatt et al., 1982) and the second from a cognitive view by Beck and his colleagues (Beck, Epstein, Harrison, & Emery, 1983). The most recent measure was developed by Robins and his associates (Robins, Ladd, & Luten, 1990).

Blatt and his colleagues (1976) set out to assess dependency and autonomy by examining "a wide variety of experiences that have been described as related to depression and to test whether these different experiences in non-clinical subjects appear in consistent clusters that have continuity with observations of clinical depression" (p. 384). Their scale, the Depressive Experiences Questionnaire or DEQ, was rationally constructed and consists of 66 items concerning distorted or depreciated sense of self and others, dependency, helplessness, egocentricity, fear of loss, ambivalence, difficulty in dealing with anger, self-blame, guilt, loss of autonomy, and distortions in family relations (Blatt et al., 1976).

From a factor analysis of the scale, three factors emerged. The first was called dependency and concerned fears of abandonment, loneliness, and helplessness. The second was called self-criticism and concerned feelings of guilt, hopelessness, dissatisfaction, insecurity, and a sense of having failed to meet expectations. The third factor was called efficacy and concerned one's perceived resources and capacities. Although there were significant gender differences in responses these three factors, dependency, self-criticism, and efficacy, emerged in both the male and female sample. Test-retest reliabilities for the dependency factor range from .89-.81 and for the self-criticism factors .83-.75 (Nietzel & Harris, 1990). Internal consistency (coefficient alpha) for dependency is .81 and for self-criticism .80 (Blatt et al., 1982). To derive an

individual's dependency or self-critical score, transformations to z-scores are made and these scores are then multiplied by factor weights, which vary across gender. There are a number of problems with the DEQ and they fall within three areas. Firstly, there is some debate concerning how best to score responses on the DEQ for self-criticism and dependency. A number of variations are used (Blatt et al., 1982; Chevron, Quinlan, & Blatt, 1979; Steele, 1978). More recently a new scoring system has been devised (Welkowitz, Lish, & Bond, 1984) but it does not seem to be in common use (Riley & McCranie, 1988). More fundamentally, there are concerns about the scale's validity, that is, whether it measures a predisposition to depression or different presentations of depression (Robins, 1991). Finally, there is some doubt about whether the self-critical factor truly addresses excessive autonomy or whether it is more related to "depressive realism" (Nietzel & Harris, 1990). The DEQ is the oldest and most established measure of dependency/autonomy and as such has been used most frequently in research, but it appears that significant problems exist in its formulation and psychometric properties.

A more recent attempt to measure the constructs of excessive autonomy and excessive dependency comes in the from of the Sociotropy and Autonomy Scale (SAS) developed by Beck and his associates, from Beck's (1983) theoretical work. Items to assess the constructs were drawn from patients self-reports and clinical material (Beck, Epstein, Harrison, & Emery, 1983). The

scale was factor analyzed and yielded two factors corresponding to sociotropy and autonomy. These factors were further analyzed and the best solution for each scale indicated the presence of three factors in each sub-scale. Factors for the autonomy sub-scale were: (1) individualistic or autonomous achievement, (2) mobility/freedom from control by others, (3) preference for solitude. Factors for the sociotropic sub-scale were: (1) concern about disapproval, (2) attachment/concern about separation, (3) pleasing others. The internal consistency (coefficient alpha) of the sociotropy and autonomy scales was .90 and .83 respectively. Within sub-scale factors for sociotropy had consistencies between .80 and .86 and within sub-scale factors for autonomy had consistencies between .60 and .82. The correlations of the sub-scale factors with one another ranged from .38-.58 for the sociotropy factors, and .20-.31 for the autonomy factors. Though the scale has been frequently used since its inception, many items have been criticised for attempting to measure both the autonomy and sociotropy constructs at once and the autonomy subscale has been criticized because of the low inter-correlations of its three factors (Robins, 1991; Robins & Block, 1988) and because, unlike sociotropy, autonomy correlates negatively with depression (Robins, Block, & Peselow, 1989). These criticisms have led to the development of a new measure of sociotropy and autonomy.

In an attempt to rectify criticisms of both the DEQ (Blatt et al., 1976) and the SAS (Beck, Epstein, Harrison, & Emery,

1983), Robins, Ladd and Luten (1990) have developed a sociotropy/autonomy scale, the PSI (Personal Style Inventory). These researchers were especially concerned about the problems of the autonomy sub-scale of the SAS, outlined above, and the contamination of DEQ items with descriptions of depressive symptoms (Robins, 1991). The PSI was created with items from the SAS and DEQ, as well as the Dysfunctional Attitude Scale (Weissman & Beck, 1978) and the Inventory of Interpersonal Problems (Horowitz, Rosenberg, & Baer, 1988). The scale consists of two 24-item sets, one measuring autonomy and the other sociotropy (see Appendix A). The internal consistency (coefficient alpha) of the autonomy sub-scale is .86, and sociotropy is .88. Each sub-scale contains three factors. For sociotropy the factors are: (1) Concern about what others think (alpha .80), (2) Dependency (alpha .72), and (3) Pleasing others (alpha .83). For autonomy the three factors are: (1) Perfectionism/Self-criticism (alpha .70), (2) Need for control (alpha .70), and (3) Defensive Separation (alpha .80). The factors within each sub-scale correlate between .40 to .59 with one another. The sociotropy and autonomy sub-scales correlate .18 with one another and both subscales have very moderate correlations (.20 and .27) with a measure of depression (Beck Depression Inventory [BDI]; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Thus it appears that the PSI has excellent psychometric properties and in recent use it was successful in

linking specific symptom clusters to autonomous and sociotropic depressed individuals (Robins & Luten, 1991).

To summarize, three modes to assess the construct of excessive autonomy and excessive dependency are currently available: (1) the DEQ, (2) the SAS, and (3) the PSI. The DEQ has the longest history but is also a somewhat questionable measure, both in its validity and in its psychometric properties. There are concerns about what it measures and how it should be scored. The SAS represents a more recent attempt to measure the constructs but is also somewhat lacking, especially in its measure of autonomy. The latest measure developed, the PSI, seems to have learned the lessons from both the DEQ and the SAS, insuring that the constructs are measured without contamination (Robins, 1991). As a result, its psychometric properties are excellent (Robins & Luten, 1990) and it currently seems to be the best measure of excessive dependency and autonomy.

The Relationship of Dependency/Autonomy to Depression

Now that we have examined efforts to operationalize the dependency/autonomy construct we will turn to research that has attempted to link it to the experience of depression.

A recent meta-analysis completed by Nietzel and Harris (1990) of the relationship of dependency/autonomy to depression found a mean effect size for the relationship between autonomy and depression to be r=.31 and for dependency and depression to

be r=.28, both being statistically significant. The data came from a variety of studies, using the DEQ, SAS, and less standardized measures (eg. Hammen et al, 1985) of dependency and autonomy and a diverse number of depression measures. The relationship between dependency/autonomy and the most common measure of depression used, the BDI (Beck et al., 1961), was .36 and .33 respectively.

For dependency, mean effect size for males was r=.25 and for females r=.28. For autonomy, mean effect size for males was r=.38 and for females r=.33. Thus for both genders the relationships seem quite similar (Nietzel & Harris, 1990). The authors did not examine whether or not there were gender differences in levels of dependency and autonomy although this has been suggested (Beck, 1983; Blatt, 1974; Chevron, Quinlan, & Blatt, 1978). Chevron et al. (1978) set out to test this prediction and found females had higher levels of dependency and males had higher levels of self-criticism. Despite this finding little research has looked for gender differences and in some cases no differences have been found (Smith, O'Keeffe, & Jenkins, 1988).

Diathesis-Stress Models of Depression and Dependency/Autonomy

Perhaps the most concerted and coherent research efforts have come in attempts to test a diathesis/stress model of depression using dependency and autonomy as vulnerability factors to life events. A good deal of investigation has

attempted to implicate interpersonal events as leading to subsequent increased depression in dependent persons and negative achievement events to depressive symptomology in autonomous individuals.

Researchers within the broader area examining life events and depression point out that the negative schemata, postulated by Beck (1967) as instrumental in depression, may become activated when individuals are confronted with personally meaningful stressful life events (Hammen, 1988; Hammen, Ellicott, Gitlin, & Jamsion, 1989; Hammen, Marks, Mayol, & demayo, 1985; Kuiper, Olinger, & MacDonald, 1988; Kuiper, Olinger, & Air, 1989; Olinger, Kuiper, & Shaw, 1987; Robins, 1990; Robins & Block, 1988, 1989; Segal, Shaw, & Vella, 1989). These researchers view Beck's cognitive model as a stress-diathesis one (Robins & Block, 1989). They believe that the effects of stressful life events will interact with a person's specific vulnerability and activate depressogenic schemas. This view attempts to take into account the views of researchers who have emphasized the role of stressful events in depression (Billings & Moos, 1982; Coyne & Gotlib, 1983; Keller, Lavori, Rice, Cryell, & Hirschfeld, 1986). As well, it may partially explain the equivocal findings regarding the relationship between cognitive variables, the negative schemata hypothesized by Beck, and depression (Coyne, 1990; Coyne & Gotlib, 1983) by examining what are believed to be the neglected mediators of

this relationship, stressful life events and specific vulnerabilities to them.

When this approach is seen in the context of sociotropy/autonomy, individuals who are very dependent would theoretically be more vulnerable to depression when they suffer a perceived loss within their interpersonal relationships whereas individuals high in autonomy would be more likely to suffer from a negative event that keeps them from reaching their important goals in achievement realms. (Hammen et al., 1989; Hammen et al., 1985; Robins, 1990; Robins & Block, 1988). We now examine the research that attempts to link autonomy and dependency and congruent life events to depression in both student and clinical samples.

The first attempt to link depression, excessive autonomy, and excessive dependency to life events was that of Hammen and her colleagues (1985). Hammen et al. used an information-processing schema approach, suggesting that persons high in dependency would be more attuned to and therefore more adversely affected by negative interpersonal relationship events whereas persons high in self-criticism (autonomy) would be more adversely affected by negative achievement events. The presence of a self-critical or dependency schema was assessed on the basis of Markus' (1977) notion that the availability of events in memory processes is an indication of the strength of the underlying schema. Thus individuals where classified as self-critical or dependent based on whether a majority of past

negative events and positive events fell within interpersonal relationship or achievement realms and the number of incidents in which they could recall feeling helpless and dependent or critical of themselves (Hammen et al., 1985). Subjects were undergraduates who were followed for four months and were interviewed by telephone once a month to assess life events and level of depression.

The results clearly supported the association between measures of depression and negative interpersonal relationship events when they occurred in persons high in dependency. There was some support for the relationship between depression and negative achievement events in persons high in self-criticism. Negative achievement events had much less impact on the symptoms of those high in dependency and negative interpersonal relationship events had less impact on depressive symptoms of those high in self-criticism. Hammen et al. concluded that the results lent support to the information-processing view. That is, individuals have in existence schemas which make some types of events more meaningful, salient, and more easily recalled. These dependent or self-critical schemas are thought to be stable patterns mediating the relationship between life-events and depression (Hammen et al., 1985). There were a number of limitations within this study, the primary one being the way in which people were classified as dependent or self-critical. The method for group assignment was previously untried and did not

involve a standardized measure. Also, a non-depressed college sample was used.

Other researchers have also examined the hypothesis that life events in the interpersonal relationship or achievement domains can specifically affect individuals with excessive dependency or autonomy and result in depression. Robins and Block (1988) call this an interactional diathesis stress model. They view sociotropy and autonomy as personality characteristics, choosing not to describe them as information processing schemas as does Hammen et al. (1985, 1989). Robins and Block (1988) studied recent life events, level of depression, and, using the SAS, levels of sociotropy and autonomy in undergraduates. In this study, level of depression was correlated with sociotropy, but not autonomy scores. As well, the interaction of interpersonal events and sociotropy was the best predictor of level of depression while the interaction between autonomy and achievement events had no predictive power. The authors speculate that the lack of an interaction between excessive autonomy and achievement events may be due to measurement problems involving the SAS, discussed earlier. An important limitation of this study was its cross-sectional design.

In a laboratory analogue design, Zuroff and Mongrain (1987), tested whether a simulated achievement or interpersonal event would have a specific impact on self-critical or dependent individuals. Subjects were female undergraduates selected for

scoring in the highest 30% of either the self-critical or dependent factors of the DEQ. The procedure involved listening to audiotapes of a romantic rejection or being told that one had not been accepted for graduate school, followed by an assessment of introjective and anaclitic depression and a measure of affect, the Multiple Affect Adjective Checklist [MAACL] (Zuckerman & Lubin, 1965). It was found that for dependent subjects, the rejection resulted in more congruent (anaclitic) depression. For autonomous subjects, however, there was no difference in the degree of introjective depression caused by the failure or the rejection, although the failure episode caused more introjective depression across all groups than did the rejection episode. One limitation of this particular study was the use of hypothetical events which called for subjects to imagine they had experienced the situation. The results, however, supported the specificity hypothesis regarding the interaction of interpersonal events and sociotropy (dependency) but offered only partial support for the interaction of autonomy (self-criticism) and achievement events.

In another study, Zuroff, Igreja, and Mongrain (1990) measured undergraduates on the Dysfunctional Attitude Scale (Weissman & Beck, 1978), the DEQ (Blatt et al., 1976) and the BDI (Beck et al., 1961). They found that dependency predicted anaclitic depression and self-criticism predicted introjective depression at a 12-month follow-up. They also found that, for both dependent and self-critical groups, the worst period of

depression involved interpersonal events. It should be noted that both of the above studies used the problematic DEQ to classify dependent and self-critical individuals and that the measures of anaclitic and introjective depression used were developed with few psychometric considerations.

The next step taken in this area of research were attempts to measure the interaction of specific life events and the sociotropic/autonomous distinction in clinical samples of depressed patients

Hammen and her associates attempted to extend their previous findings by removing some of the limitations of their earlier work (Hammen, Ellicott, Gitlin, & Jamison, 1989). This study used patients with unipolar and bipolar depression and a standardized measure of sociotropy/autonomy, Beck's SAS. Patients symptom status was examined for six months. It was found that onset or exacerbation of symptoms was preceded by significantly more negative interpersonal relationship events for sociotropic individuals and significantly more negative achievement events in autonomous individuals with unipolar depression. This relationship did not hold for the bipolar group. As well, unipolar individuals who experienced a larger number of life events congruent with their Sociotropy/Autonomy classification were more symptomatic. Again this relationship did not hold for bipolar patients. These results indicate that the relationship between excessive dependency and autonomy, congruent life events, and depression holds for unipolar

depression and not bipolar disorder. However, Hammen et al. qualify these findings and suggest that their sample sizes may have been too small, or six months was an insufficient period of time for the relationship to be evidenced in bipolar patients. Another methodological problem concerned the classification of sociotropic and autonomous individuals. As there were no guidelines for distinguishing subtypes, this was done by a simple preponderance score of one sub-scale over another. Despite these weaknesses the results of the work were promising.

The next study in this series (Hammen, Ellicott, & Gitlin, 1989), sought to predict the course of a depressive episode by postulating that the worst period of symptoms would occur after negative life events congruent with the person information processing vulnerability schema. Unipolar depressed patients were classified as autonomous or dependent with Beck's SAS and were followed for six months to two years. A more sophisticated method was used to assign subjects to sociotropic or autonomous groups. Subjects were called autonomous if their z-score on the autonomy scale was positive and their z-score on the sociotropy scale was negative (this was reversed for sociotropy). This study found that, for autonomous individuals, the number of negative achievement events best predicted level of depressive symptoms and that the number of interpersonal events had no predictive utility. However, for sociotropic individuals, neither the number of achievement or interpersonal events was able to predict the level of depressive symptoms. Finally, for

both groups combined, those individuals who remained symptomatic had significantly more schema (autonomous or sociotropic)-congruent stressful events (Hammen, Ellicott, and Gitlin, 1989). Limitations in this study included the small sample size and the heterogeneity of the sample which may have allowed the presence of concurrent personality disorders, temporal stage of each patient's depressive episode, and variations in psychotherapy and pharmacotherapy undergone by those in the sample. Again, however, the results were suggestive that the dependent/autonomous distinction is useful in predicting depressive reactions to specific stressors.

Robins (1990) extended his 1988 work involving the interactional diathesis-stress model to depressed patients. These individuals were compared with inpatients diagnosed with schizophrenia who were not depressed. For the depressives, the results showed the expected interaction between number of negative interpersonal events and high sociotropy on level of depression. The interaction for achievement events and high autonomy was not significant. The hypothesis that no interactions would take place for the psychiatric control sample was supported. A second experiment involving college students also found support for an interaction effect of either social or achievement events and sociotropy and autonomy in dysphoric students but not in non-dysphoric controls. Across both experiments, evidence for the interaction of negative interpersonal events and excessive sociotropy was stronger than

evidence for the interaction of autonomy and negative achievement events.

Another study involving the assessment of specific life events and excessively dependent or autonomous subtypes on depression was carried out by Segal, Shaw, and Vella (1989). Unlike previous studies these researchers used remitted depressives who were followed for six months. Segal et al. see the sociotropic/autonomous types as depressive personality styles, a view similar to that of Robins (1988, 1990). Subjects were classified as high in need for approval or high in performance evaluation based on a median split of their responses to items on the DAS (Weissman & Beck, 1978) which were previously found to represent the two factors of dependency and self-criticism (Cane, Olinger, Gotlib, & Kuiper, 1986). It was found that for individuals high in performance evaluation, neither interpersonal nor achievement events correlated with level of depression or relapse while for individuals high in need for approval interpersonal events correlated significantly with level of depression and relapse. These researchers believe that the findings may be accounted for by a lack of proper theoretical elaboration of the autonomous subtype, and suggest that a new scale should be constructed to measure the dimension (Segal et al., 1989).

Hammen and Goodman-Brown (1990) attempted to examine the occurrence of depression with excessive dependency/autonomy and specific life events in children aged 8-16 years. The sample

included children of mothers who were normal, or who had recurrent episodes of unipolar depression, bipolar disorder, or had insulin dependent diabetes. Classification of "interpersonally vulnerable" or "achievement vulnerable" children was made by the same method used earlier (Hammen et al., 1985) involving recall of events in which things were going badly or things were going well. The results showed that children who became depressed showed a greater number of schema-congruent negative life events than those who did not. The results were somewhat stronger for excessive dependency and negative interpersonal events. Furthermore, the majority of children who became depressed after experiencing schema congruent events were children of mothers with unipolar depression or bipolar disorder, suggesting either the presence of a genetic vulnerability to depression or perhaps systematic differences in child rearing or levels of stress. Overall, however, most children of these mothers did not become depressed. Limitations to this study included the unstandardized assessment of dependent or autonomous schemas and a small sample size that did not allow some important statistical comparisons. In general, the results added to previous positive findings and extended the relationship between the dependent/autonomous distinction, relevant life events, and depression to a new population, children.

As we have seen, in general there is more support for the interactive effect of interpersonal events and excessive

dependency than there is for achievement events and excessive autonomy (Hammen et al., 1985; Hammen & Goodman-Brown, 1989; Robins & Block, 1988, Robins, 1990, Segal et al., 1989; Zuroff & Mongrain, 1987, Zuroff et al., 1990).

Two possibilities are put forward to explain these differential findings (Robins & Block, 1988; Segal et al., 1989); the first is that only excessive dependency is a vulnerability factor for depression and the second is that measurement problems of the autonomy construct account for the differences in findings (Robins & Block, 1988; Robins, 1990). The first explanation is not consistent with the results of Hammen, Ellicott, and Gitlin (1989) who found a stronger effect for the interaction of autonomy and negative achievement events as well as those studies that find trends linking depression with the interaction of excessive autonomy and negative achievement events (Hammen, Ellicott, Gitlin, & Jamison, 1989; Robins, 1990). Furthermore, small sample sizes have often precluded statistical analyses of differences between the effect size of the interpersonal event-sociotropy interaction as compared to the effect size of the achievement event-autonomy interaction, obscuring the picture (eg. Hammen & Goodman-Brown, 1990). Measurement problems, the second explanation offered to explain the lack of findings regarding excessive autonomy and achievement events is more consonant with the finding of trends but not robust effect sizes. As discussed earlier, measurement and theoretical problems extant both in the SAS used by Hammen

and her associates as well as the DEQ used by Zuroff and
colleagues have been taken up by Robins and his associates and
the application of his new measure may bring clearer results for
the interactive effect of achievement events and excessive
autonomy.

Relationship of Dependency/Autonomy to Other Psychological Constructs

We now turn to research that has sought to link a variety of
variables with the presence of excessive autonomy or dependency.
Unlike attempts that have sought to link life-events and
excessive dependency/autonomy to depression this research has
not evolved as clearly. This seems largely to be due to the
great variety of variables studied, and the fact that often only
one or two studies examine the same types of variables.
Furthermore, the use of different measures of dependency and
autonomy complicates inter-study comparisons. These
difficulties have, to a large extent, resulted in equivocal
findings that are not followed by further investigation or
refinements of methodology. Thus in many areas much work needs
to be done before firm conclusions can be drawn. The research
to date on differences between excessively dependent or
autonomous individuals has examined familial background (Blatt,
Wein, Chevron, & Quinlan, 1979; McCranie & Bass, 1984),
differences in attributional style (Brewin & Furnham, 1987;
Brown & Silberschatz, 1989), different symptom presentation

(Robins, Block, & Peselow, 1989; Robins & Luten, 1991), sex role orientation (Chevron et al., 1978; Zuroff, Moskowitz, Wielgus, Powers, & Franko, 1983), and personality correlates (Pilkonis, 1988; Riley & McCranie, 1990).

Research on familial differences between persons high in autonomy or dependency has come from the perspective of Blatt (1974) who has emphasized the role of a strict mother figure in the development of anaclitic (dependent) depression and the role of both parents as strict and demanding of achievement in introjective depression. Research using the DEQ has found that self-criticism is negatively correlated with parental evaluation while dependency is not (Blatt et al., 1979). Another study by McCranie and Bass (1984) found that individuals scoring higher on dependency are more likely to rate their mother as emphasizing strict control, being the dominant parent, and expecting conformity. Individuals scoring high in autonomy viewed both the mother and father as emphasizing strict control, expressing inconsistent affection, and as highlighting achievement and performance. Especially noteworthy to these researchers was the emergence of the relationship between maternal strictness and dependency, a relationship predicted by Blatt (McCranie & Bass, 1984). Thus individuals high in dependency were more likely to report that their parental homes emphasized passive conformity while self-critical individuals reported an emphasis on achievement. The two studies discussed have common limitations. First, given the cross-sectional

nature of the work it is difficult to know whether child-rearing patterns were actually different or if the presence of self-criticism or dependency influenced people's perceptions. Second, retrospective reports may have been biased by social desirability factors. The results were, however, encouraging for Blatt's predictions of the etiology of anaclitic and introjective depression.

In light of theories which highlight the importance of internal, stable, and global attributions in depressives (eg. Abramson, Seligman, & Teasdale, 1978) investigations of differences in the attributional styles of self-critical (autonomous) and dependent individuals have been conducted. The first study by Brewin and Furnham (1987) predicted, based on the writings of Blatt, that internal attributions for failure should only be correlated with self-criticism. The basis for this prediction was Blatt's contention that dependent persons feel helpless because they believe that circumstances outside of their control determine what happens to them; thus these individuals should make external attributions. The study used a sample of undergraduates who completed the Attributional Style Questionnaire (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982) a measure of the way in which one makes attributions, the DEQ, and the BDI (Beck et al., 1961). This study found that level of depression, as well as dependency and self-criticism were positively related to making both internal and global attributions. There were no differences in

attributions made by dependent or self-critical individuals (Brewin & Furnham, 1987). The authors suggested that use of a clinically depressed sample may cause differences to emerge. This was attempted by Brown and Silberschatz (1988). They too found that self-criticism and dependency were equally correlated with internal attributions. Together these results offer little support for Blatt's contention that dependent persons feel helpless because they believe that outcomes are externally controlled.

Commonalities between attributes which have been found to be socially desirable in males and females and Blatt's descriptions of self-critical and dependent sub-types have led researchers to examine possible gender differences in the two constructs (Chevron et al., 1978; Zuroff et al., 1983). Based on research which finds that competence and assertiveness are seen as desirable attributes for males and warmth and expressiveness are seen as desirable attributes for females, it was postulated that self-criticism would be associated with masculine characteristics and dependency would be associated with feminine characteristics (Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968). It was found that competency, considered a desirable male trait, was negatively related to dependency in both males and females. Furthermore, warmth, a desirable female trait, was related to dependency in males and unrelated to dependency in females. Warmth was negatively related to self-criticism in females. The authors believe that the results

reflect the culture's bias towards viewing masculine characteristics as more healthy regardless of a person's gender (Chevron et al., 1978). The unexpected correlations between competency and dependency and warmth and self-criticism make the results somewhat unclear.

A second study examining the relationship of dependency/self-criticism and sex roles was conducted by Zuroff and associates (1983). Scores on Bem's (1974) Sex Roles Inventory and their relationship to dependency/self-criticism in males and females were examined. He found that males high in dependency described themselves as low in masculinity and high in femininity, while females high in dependency described themselves as low in masculinity. There were no correlations between self-criticism and masculinity/femininity in males or females. The two studies together present a somewhat equivocal picture concerning the relationship of self-criticism and sex roles; however, in both studies dependency was negatively related to masculinity in both males and females. Thus the construct of excessive dependency seems to be linked to low levels of masculinity while self-criticism seems to be independent of masculinity/femininity constructs.

There has also been an attempt to link different personality prototypes to excessively dependent or autonomous individuals (Pilkonis, 1988). The prototype methodology uses a panel of experienced clinicians to generate descriptions of members of a particular category. Only those descriptors that occur in a

specified quantity are retained and a second panel of judges sorts these descriptors back into the original categories. Descriptions of dependent and autonomous depressives garnered from the literature were categorized by 20 clinicians. The results indicated the presence of two prototypes within the dependent subtype: (1) excessive dependency and (2) borderline features. Within the autonomous subtype, three prototypes were found: (1) obsessive-compulsive features, (2) defensive separation, and (3) lack of interpersonal sensitivity. The author suggests that clinicians organize the information about the global labels of dependent and autonomous into more detailed subcategories (Pilkonis, 1988). Limitations to this study lie mainly in its use of only theoretical material; the prototypes found would need to be confirmed as valid in an actual sample. However, the relationship of clusters corresponding to obsessive-compulsive and borderline personality disorders in autonomous and dependent subtypes, respectively, seems especially interesting and seems to fit with clinical descriptions provided both by Blatt (1974) and Beck (1983).

Other researchers have attempted to look for differential relationships between various measures of psychopathology and excessive dependency/autonomy. Klein, Harding Taylor, and Dickstein (1989) measured depressed female outpatients and normal controls on the DEQ, the Family History Research Diagnostic Criteria (FH-RDC) interview (Andreasen, Endicott, Spitzer, & Winokur, 1977), the Longitudinal Interview Follow-Up

Evaluation (LIFE; Keller, Lavori, Friedman, Nielsen, Endicott, McDonald-Scott, & Andreasen, 1987), the BDI (Beck et al., 1961), the Carroll Rating Scale for depression (CRSD; Carroll, Feinberg, Smouse, Rawson, & Greden, 1981), and the Social Adjustment Scale (SAS; Weissman & Bothwell, 1976). Patients were followed-up after a six month period. It was found that, for those who recovered from their depression, scores on self-criticism and autonomy dropped, but not to normal levels. Higher levels of self-criticism were significantly related to loss of interest, irritability, and poorer social functioning at follow-up, while higher levels of dependency were associated only with crying or tearfulness. The authors were surprised at the lack of significant relationships between self-criticism, dependency, and almost 50 dependent variables used. The lack of relationships may be accounted for by the measure used to assess excessive dependency or autonomy (the DEQ). Most of the variables that were examined were specifically hypothesized by Blatt (1974) to be related to either introjective or anaclitic depression; it is possible that there are problems with his articulations of the constructs. The results are also inconsistent with findings that dependent and autonomous subtypes do indeed evidence varied psychopathology and clinical features, which we will now examine.

Another study assessing the relationship of psychopathology to excessive dependency/autonomy comes from Riley and McCranie (1984). They measured depressed inpatients

on the DEQ, the BDI (Beck et al., 1961), the Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974) which measures specific negative expectancies regarding self and future, the ATQ (Hollon & Kendall, 1980) which measures depressive cognitions, the RAS (Rathus, 1973), which measures self reported assertiveness, the MMPI (Hathaway & McKinley, 1940) and a psychiatric history questionnaire developed by the authors. For males self-criticism correlated significantly with depression (BDI), hopelessness, and depressive cognitions (ATQ). For females self-criticism correlated significantly with depression (BDI), hopelessness, depressive cognitions, lack of assertiveness, and the MMPI depression scale (MMPI-D). For males, dependency had no correlates and for females dependency correlated with depression (BDI), hopelessness, depressive cognitions and the MMPI depression scale. The measures were also factor analyzed with dependency, and lack of assertiveness loading on the first factor and self-criticism, depression (BDI), depressive cognitions, and hopelessness loading on the second factor. There were no gender differences in the factor structures.

Scores on the MMPI indicated that self-critical males are likely to be in acute distress, attempt to exaggerate symptoms, and report more hostility, interpersonal conflict, and psychotic symptoms. Self-critical females were undifferentiated from dependent females, with both subtypes reporting more acute distress, symptom exaggeration, complaints of depression,

hostility/conflict, obsessive worry, suspiciousness, psychotic symptoms, and introversion. Dependent men had no particular profile except that they tended neither to exaggerate symptoms nor view themselves as being in significant distress.

The authors report that their overall results support the dependent and self-critical constructs (Riley & McCranie, 1984). While results from correlational data were somewhat equivocal and contained gender differences, the factor analysis supported the construct validity of self-critical/dependent dimensions; self-criticism was associated with overt cognitive and affective signs of depression, and dependency was associated with subtle behavioural manifestations such as passivity. The failure to distinguish a differential MMPI profile in self-critical and dependent women is consistent with the work of Klein et al. (1988), discussed earlier, which failed to find a clinical distinction between excessively autonomous and excessively dependent depressed women. However, there is no explanation as to why dependency in males had no psychopathology correlates. These studies make it apparent that there are definite sex differences in the correlates of self-criticism and dependency in males and females and that these differences should be carefully considered.

Differential psychopathology correlates have also been examined by Goldberg, Segal, Vella, and Shaw (1989) who examined the relationship of personality disorders to excessive autonomy or dependency. Based on a factor analysis of the Dysfunctional

Attitude Scale (Weissman & Beck, 1978) by Cane, Olinger, Gotlib,
and Kuiper (1986) that found two factors believed to correspond
with Beck's (1983) subtypes, depressed inpatients were
classified as sociotropic or autonomous. The MCMI (Millon,
1981), a self-report measure designed to assess personality
functioning consistent with Diagnostic and Statistical Manual
[DSM-III] (American Psychiatric Association, 1980) was also
administered. Autonomous individuals were found to have
elevated scores on the negativism, anxiety, and dysthymia
subscales of the MCMI, while sociotropic individuals were found
to have elevated scores on the avoidant, dependent, anxiety, and
dysthymia subscales. Beck's descriptions of the sociotropic
subtype correspond closely to their MCMI profile which
characterizes such persons as self-effacing, noncompetitive,
constantly seeking reassurance and relying on others for
guidance. The MCMI profile of autonomous individuals is less
consistent but elevations on feelings of being misunderstood and
anticipation of failure are consistent with Beck's descriptions.
In general, the results offered further evidence for the
validity of the dependency/autonomy construct.

Another recent approach to validate the constructs of
excessive dependency and autonomy in depression has been to
differentiate symptom clusters that have been postulated by Beck
(1983) to occur in one subtype or another (Robins, Block, &
Peselow, 1989; Robins & Luten, 1991). The symptoms postulated
by Beck (1983) to coincide with sociotropy included demands for

help, dwelling on loss of gratification, crying, concern about
social attributes, responsivity to reassurance and support,
lability of mood, greater reactivity to positive and negative
events, and reports of sadness. Symptoms postulated to coincide
with autonomy included anhedonia, self-criticism, loss of
interest in and withdrawal from other people, decreased
probability of crying, unremitting depressed mood, low
probability of seeking help, greater pessimism about the
possibility of being helped, attributing difficulties to
personal deficiencies, and concern about inability to function.
The first attempt to link these different symptoms to sociotropy
or autonomy (Robins et al., 1989) involved depressed inpatients
and outpatients who were classified as sociotropic or autonomous
on the SAS and then measured on the BDI (Beck et al., 1961) and
HRSD (Endicott, Nee, Cohen, Fleiss, & Sarantakos, 1981), which
emphasizes neurovegetative symptoms. The authors placed those
items on the HRSD and BDI that were specifically predicted by
Beck (1983) to be related to sociotropy or autonomy into
specific clusters. For sociotropy these were items concerning
sad mood, crying, decision-making difficulty, negative body
image, somatic concerns, and psychic anxiety; items concerning
hopelessness or disinterest in people were removed. For
autonomy the items assessed hopelessness, perceived failure,
loss of enjoyment, guilt, punishment, self-dislike, self-
reproach, irritability, and guilt; an item concerning crying was
removed. Sociotropic symptoms were significantly related to

sociotropy and autonomy symptoms were negatively related to sociotropy. Autonomous symptoms were not related to autonomy but sociotropic symptoms were negatively related to autonomy. The authors point out that problems with the autonomy subscale may have been responsible for lack of findings with this subtype. The results offered partial support for the excessive dependency/autonomy construct, and another study was conducted which used a new measure of sociotropy and autonomy.

The next piece of research attempted to correct the shortcomings of the first (Robins & Luten, 1991). As such, a new measure of sociotropy/autonomy, the PSI (Robins et al, 1990), was used and a more comprehensive assessment of symptoms postulated by Beck (1983) to be related to one subtype or another was created. The sample consisted of depressed inpatients who were measured on the PSI and responded to items assessing the 19 clinical features hypothesized by Beck (1983) to be more strongly related to sociotropy or autonomy. The sociotropic clinical feature composite was constituted by the following items: optimism about treatment, response to reassurance, variability of mood, reactivity of mood, and feelings of relief in regards to hospitalization. For the autonomous clinical features composite items were: loss of interest or pleasure, feeling like a failure, self-blame, loss of interest in people, avoidance of people, irritability, and concern about inability to function.

The results fully supported the authors' hypotheses: sociotropic clinical features were related to sociotropy scores but not autonomy scores, and autonomy clinical features were related to autonomy scores but not sociotropy scores. The authors point out that these results lend good support to the validity of the sociotropy/autonomy construct and are in line with the findings of research linking specific life events to the experience of depression. They also show that the PSI is a promising measure of the sociotropy/autonomy construct.

Interpersonal Aspects of Sociotropy and Autonomy: Theoretical Perspectives

Having examined the research to date on the relationship of excessive sociotropy/autonomy and depression, what conclusions can be drawn and what are important questions left unanswered? In their recent meta-analyses of this topic, Nietzel and Harris (1990) concluded that "dependency and achievement/autonomy themes are sufficiently related to depressive experiences...that therapists should consider this content as a legitimate target for intervention with depressed clients" (p. 292). The present examination of the literature reinforces this notion. Thus it seems that excessive autonomy or dependency can affect vulnerability to depression, the impact which specific life events have, clinical manifestations of depression, and associated psychopathology. However, an important question left unanswered to this point regards interpersonal correlates of

excessive dependency/autonomy (Nietzel & Harris, 1990; Robins and Luten, 1991). That is, can depressed persons in whom autonomy or dependency dominate be differentiated in their interpersonal behaviour and are they perceived differentially by others? The writings of both Blatt (1974) and Beck (1983) certainly imply that there would be interpersonal differences, both in their interpersonal behaviour and perceptions of others.

The importance of interpersonal factors in depression has been emphasized by a number of researchers (Barnett & Gotlib, 1988; Coyne & Gotlib, 1983; Marcus & Nardone, 1992; Segal, 1988). Depressed individuals are found to display longer response latencies in interactions and to emit less social behaviours (Libet & Lewinsohn, 1973). As well depressed persons are prone to more displays of self-devaluation, sadness, and helplessness (Hokanson, Sacco, Blumberg, & Landrum, 1980). Moreover, depressed persons have been found to recall less social evaluative information and to believe that others appraise their social behaviour negatively (Loewenstein & Hokanson, 1986).

Safran (1990a, 1990b) has conceptualized the presence of an interpersonal schema, an abstraction based on "interactions with attachment figures that permits the individual to predict interactions in a way that increases the probability of maintaining relationships with these figures" (Safran, 1990a, p. 93). This concept is based on perspectives such as Bowlby's (1969) which postulate a wired-in propensity for social

relationships in infants and an ability to encode past experiences in order to maximize the possibility of receiving future sustenance from attachment figures. Thus an interpersonal schema is learned and is most usefully construed as a program for maintaining relatedness.

A dysfunctional interpersonal schema can develop if certain ways of behaving were adaptive for the infant in securing rewards from attachment figures but are not adaptive for interpersonal relatedness in the present. In other words, a person may not attempt to relate to any given individual but rather acts in such a way as to satisfy his internal sense of what is required to maintain relatedness (Safran, 1990a). Furthermore, once such a schema is in place, individuals will both construe and construct (Strupp & Binder, 1984) their world: thus contrary information may not be incorporated into the interpersonal schema and most likely will be misinterpreted.

The interpersonal schema perspective paralells Blatt's (1974) conceptualization of the development of introjective and anaclitic depression develop. In anaclitic (dependent) depressives parental figures are thought to be unreliable in showing affection and support, and in introjective (autonomous) depression parental figures provide rewards conditional on the child's performance. Thus, in anaclitic depression children learn that to satisfy their needs they must continuously demand attention and be dependent. In introjective depression children have learned that they must earn love through achievement. Thus

both types of depression evolve due to an interpersonal schema that emphasizes either a dependent role or an achievement role in order to satisfy the individual's internal script for relating with significant others. Thus such individuals can be seen as having interpersonal schemas that are dysfunctional in the present but are rooted in early learning experiences that were adaptive in childhood. People's dependency or achievement focus may be seen as an integral part of their relatedness schema, and as such should be manifested in their interpersonal behaviours.

Beck (1983) describes many attributes of the sociotropic or autonomous person that fall within the interpersonal domain. The sociotropic person is fearful of rejection, needy of others, does not take risks, asks for continuous reassurance, is eager to give up control to others, and obtains pleasure from receiving. The autonomous individual is seen as less susceptible to social feedback, reluctant to give up control to others, oblivious to the effect of his actions on other people, not empathetic, direct, decisive (to the point of being dogmatic or authoritarian), dislikes being blocked or deterred, and dislikes externally imposed demands or pressures. To date, no empirical evidence for such differences exists.

Beck theorizes that these attributes are pervasive and highly salient to others. They are exhibited both in the general social world and in the patient/therapist relationship (Beck, 1983). In fact, these characteristics are thought to

have a such a significant impact in the behaviour of the individual and subsequently in the patient/therapist relationship, that clinicians are advised to tailor therapy for each subtype (Beck, 1983). Thus it is postulated that the therapist should be aware of the person's status with regard to sociotropy and autonomy and to consider how this might influence the practice and course of therapy.

Autonomous individuals are thought to require a collaborative relationship in which they are allowed to set goals, with much less focus on a warm, guided relationship. Later on in therapy, the patient's underlying rigidity should be examined and an internal sense of freedom, not one based on achievement of all goals, should be cultivated. For sociotropic individuals, therapy should be structured with an emphasis on helping and guidance with less emphasis on self-determination. Explanations and clarifications by the therapist are thought to elicit a positive response (Beck, 1983). The dominant themes in therapy would appear to be "collaboration" for autonomous individuals and "guidance" for sociotropic individuals. Thus, attesting to the importance of differences in interpersonal factors between sociotropic and autonomous persons, Beck suggests the implementation of a differential therapeutic relationship with each subtype.

Examining Interpersonal Differences in Sociotropic and
Autonomous Individuals

Given these theoretical descriptions of the way in which sociotropy and autonomy manifest themselves within the domains of interpersonal behaviour it would be very enlightening to empirically assess how such individuals view themselves interpersonally, how they perceive and react to others, and how they are viewed by others within the context of a social interaction. The confirmation or disconfirmation of postulated differences would add considerably to our empirical knowledge base concerning the sociotropic/autonomous distinction. The study of these interpersonal behaviours will also add validation evidence for scales assessing the constructs of sociotropy and autonomy. Many items on scales such as the PSI focus on the individuals behaviour with and in reaction to other people. As yet there have been no studies to examine whether or not such behaviours and reactions actually occur in an interpersonal situation. The PSI was developed and evaluated within a college population, and whether it has any power in predicting actual interpersonal behaviour in such individuals is an important empirical and practical question that I will attempt to answer.

To the degree that sociotropy and autonomy are self-schema, they should bias the perception of other people. Research involving individuals who are schematic on a given dimension has shown that perception of others is subject to bias. It has been shown that schemas operate unconsciously to gather schema-specific information about the target person as opposed to

aschematic information, that judges place greater confidence in assessments of the target person on those traits for which they are themselves schematic, and that target persons are seen as similar to the judge on schema-relevant traits (Catrambone & Markus, 1987; Fong and Markus, 1982; Markus et al., 1985). Furthermore, our perceptions of others have been found to sustain our own self conceptions because we seek to gain information from others that is consistent with our self-schemas (Swann, 1987; Swann & Read, 1981).

To the degree that sociotropy and autonomy are self-schema that affect social perception and to the degree that theorized interpersonal differences exist, sociotropic and autonomous individuals should have different goals when they are engaged in social interactions. Theory and research suggests that sociotropic individuals may be motivated by interpersonal aspects of a social interaction while autonomous individuals should be more motivated by their task goals. Therefore, the first question to be examined in the current study is whether differences in sociotropy and autonomy are related to either interpersonal or task goals in an interaction. Given past theory and research, the first hypothesis in the current study is that the two groups will differ on measures of interpersonal and task goals. That is, sociotropic individuals will describe themselves as motivated by interpersonal goals such as having the interaction go smoothly and getting along with their partner. Autonomous individuals will describe themselves as

motivated by task goals, such as achieving their own objectives and aims in the interaction.

Second, I will examine the nature of interpersonal concerns of sociotropic and autonomous individuals within an interactive task. Concerns about interactions with others should reflect interpersonal issues centering on the underlying factors of sociotropy and autonomy. Thus, within a social interaction sociotropic individuals would be more concerned with pleasing others, the evaluation of them by others, and their dependence on the other person. Similarly one would expect that within the context of a social interaction the concerns of autonomous individuals would centre on issues of defensive-separation from others, maintaining control in the interaction as well as perfectionistic expectations for themselves. These concerns should be pre-eminent across different situations. Thus the second hypothesis is that sociotropic individuals will score higher on a measure of sociotropic interaction concerns than autonomous individuals and that autonomous individuals will score higher on a measure of autonomous interaction concerns than sociotropic individuals in an interactive task.

Another question I wished to address concerns how the interpersonal behaviour of another person is perceived within a social interaction and how this might exacerbate dysphoria. I postulate that the self-schema of sociotropic and autonomous individuals may bias the perception of other people on dimensions of sociotropy and autonomy. Thus persons high in

sociotropy may generally view others as more dependable, as being more pleased with them, and evaluating them positively. Likewise, persons high in autonomy may view others as being generally overcontrolling, intruding upon them and as having perfectionistic expectations.

Such biased perceptions are likely to interact with situational factors. Theoretical conceptions of sociotropy and autonomy suggest that such persons' interpretations and behaviours in interpersonal situations may largely be a function of the way in which others behave. The writings of Beck (1983) would suggest that if autonomous persons interact with a controlling or assertive other, they respond with dislike, feelings of anger, intrusion, and over-control. A sociotropic person on the other hand is likely to respond to such a person in a positive manner, interpreting such controlling behaviour as guiding and helpful, in essence, a "receiving of input". Conversely an autonomous person who interacts with a passive and unassertive other, is likely to interpret this behaviour positively, given the lack of intrusion on his or her goal-directed behaviour and the presence of self-determination. A sociotropic person is likely to negatively interpret such a passive individual, given that such behaviour may elicit perceptions of lack of concern, lack of support, and dislike by the other person. Given the importance of this situational dimension, the current study will involve manipulating the behaviour of a confederate to reflect either controlling or

passive behaviour in an interaction with a sociotropic or autonomous individuals. Thus the third hypothesis is that both situational factors and an individual's classification as sociotropic or autonomous will affect the perception of another person. In other words, both groups will perceive a controlling partner as being higher on the autonomy dimensions (controlling, intrusive, perfectionism) and the sociotropy dimensions (dependable, evaluating them positively, pleased with them). However, regardless of the role of the partner, sociotropic individuals will rate their partner higher on sociotropic dimensions and autonomous individuals will rate their partner higher on autonomous dimensions.

If sociotropic and autonomous persons perceive others differently sociotropic individuals should rate their partner in an interaction as more likeable than their autonomous counterparts. Thus the fourth hypothesis to be examined is that sociotropic individuals will assess their partner as more likeable than will autonomous individuals.

Autonomous and sociotropic persons may also be perceived differently by others within the context of a social interaction. Autonomous persons should appear as somewhat disinterested in others and aggressive in pursuing their own course of action. The sociotropic individual should appear as desirous of any social contact and input from others. Thus, one would predict that persons high in sociotropy would be seen as more social and likeable than individuals high in autonomy.

Thus the fifth hypothesis is that, on a measure of liking, sociotropic individuals will be rated as more likeable than their autonomous counterparts.

Finally, sociotropic and autonomous individuals may show different affective responses to social interactions. Such changes may play an important role in the maintenance of dysphoria and will therefore be assessed in the current study. The sixth hypothesis is that, on the measures of affect, an interaction between sociotropic and autonomous classification and partner behaviour will occur. For autonomous individuals, interacting with the controlling partner would result in feelings of resentment and thus decrease positive affect and increase negative affect. For sociotropic individuals, positive affect will increase and negative affect will decrease during the interaction with the controlling partner. For the passive partner, autonomous individuals will experience an increase in positive affect and a decrease in negative affect, given that they are allowed to independently make the decisions and complete the task in the way they would most like. Sociotropic individuals should decrease in positive affect and increase in negative affect in response to a passive individual who does not guide and help them in the task.

Overview of Methods

The current study is a 2 x 2 between groups design. The first factor (Group) is classification as sociotropic or

autonomous. The second factor (Role) is the confederate role, controlling or passive.

Individuals were selected for participation based on a criterion score indicating mild dysthymia and either excessive sociotropy or autonomy. Subjects were asked to participate in a simulated "helping" task with another individual (a confederate) acting in the "helper" role. Given the predictions of Beck (1983) about the way in which such people behave with others and their postulated reactions, the confederates adopted either a "controlling" role in which they gave input into and influenced their partners decisions or adopted a "passive" role in which they gave little direction and allowed the subject to arrive at their own decisions. Following the interaction, subjects were asked to assess the interpersonal behaviour of the confederate on the factors that underlie sociotropy and the factors that underlie autonomy, their concerns about the interaction on those sociotropy and autonomy factors and their focus: task or interpersonal, liking of their partner, and the presence of positive and negative affect in response to the interaction. The confederates rated the likeability of the subjects in the interaction.

Subjects

Subjects in this study were female undergraduates enroled in first or second year Psychology courses, who volunteered to participate. Approximately 1600 individuals were screened and 96 participated in the laboratory procedure. Subjects were

selected for participation if they met criteria for dysthymia (BDI > 12) and had scores on the PSI indicating excessive sociotropy or autonomy. Subjects were classified as sociotropic if they obtained a positive z-score on the sociotropy sub-scale, and a negative z-score on autonomy. Subjects were classified as autonomous if they obtained a positive z-score on the autonomy scale and a negative z-score on the sociotropy sub-scale. This procedure is thought to provide the best means by which to classify individuals and has previously been used successfully for this purpose (Hammen, Ellicott, & Gitlin, 1989; Robins, 1990).

Only women were assessed because there is some basis for believing that the sociotropy/autonomy construct has different consequences for males and females (Chevron et al., 1978, Riley & McCranie, 1984) Secondly, given the distribution of psychology classes, with an almost 2:1 female to male ratio, it is probable that the number of males who are sufficiently dysphoric and either sociotropic or autonomous would have been too small to allow for meaningful statistical comparisons.

Subjects were recruited through a presentation by the experimenter describing a study involving social interactions and the experience of depression. Students were told that the study consisted of two parts, the first part involving filling out of questionnaires and the second part involving their participation in a laboratory task.

<u>Confederates</u>

Confederates were two female research assistants, who were trained to enact either a controlling or a passive script for the interaction (Appendix H). The assistants pretended to be another participant in the experiment and were present during the presentation of instructions and measures. The confederates were trained to enact similar levels of warmth and script accuracy in the two roles.

Three subjects were excluded based on role deviations of the confederates and these were replaced by other participants.

<u>Manipulation Checks</u>

Confederates were monitored on the number of script deviations and warmth by the experimenter to insure that the roles were carried out with a similar level of accuracy and warmth, across groups and confederates.

<u>Procedure</u>

Potential subjects who met screening criteria were asked to participate in the laboratory procedure at a convenient time. Upon arriving at the laboratory, they were introduced to the confederate. At this point they completed consent forms, the BDI, and affect measures.

Experimental Task. Upon completion of the questionnaires, subjects were told that the purpose of the experiment was to study "helping styles" and that we wished to examine different types of helping behaviours (Appendix I). They were informed that they would be taking turns being a helper for the other

person and that they would be discussing a specific problem. The confederate was always chosen as the initial "helper." The problem to be discussed was fitness and exercising with subjects being asked to consider how they might improve their fitness level. Both persons were instructed that the interaction could proceed in whatever way they wanted with the confederate as the designated helper, and that they would be observed by the experimenter during the interaction. Once the experimenter left the room the confederate enacted either the controlling or passive role for the duration of the interaction. The experimenter monitored the behaviour of the confederate throughout the interaction.

Once the task was completed the confederate and subject were separated and the subject was asked to complete the affect measure, the interaction concerns measure, the perception of partner behaviour measure, and the measure of liking. The confederates completed the measure of liking for each subject.

At the end of the study, subjects were debriefed by being told the nature of the study, the true identity of the confederate, and the purpose of the experimental manipulation.

Measures

Classification Variables

Personal Style Inventory. Subjects were assessed for the presence of sociotropy/autonomy using this measure, developed by Robins et al. (1990). The scale, illustrated in Appendix A, consists of two 24-item sets, one measuring autonomy and the

other sociotropy. Coefficient alpha for the sociotropy sub-scale is .88 and for the autonomy sub-scale is .86. Test-retest reliabilities for a period of between 5 and 13 weeks was .80 for the sociotropy sub-scale and .76 for the autonomy sub-scale (Robins & Luten, 1991). Each sub-scale contains three factors. These factors for sociotropy are: (1) Concern what others think (alpha .80), (2) Dependency (alpha .72), (3) Pleasing others (alpha .83). For autonomy the three factors are: (1) Perfectionism/Self-criticism (alpha .70), (2) Need for control (alpha .70), (3) Defensive Separation (alpha .80). The factors within sub-scales correlate .40 to .59. The sociotropy and autonomy sub-scales correlate .18 with one another, indicating that they are largely independent dimensions. The scale's psychometric properties and its evolution, discussed earlier, as an attempt to remedy problems with both the SAS (Beck et al., 1983) and the DEQ (Blatt et al., 1976), make it the most desirable measure for assessment of sociotropy/autonomy.

Beck Depression Inventory. The Beck Depression Inventory (BDI) was originally developed 30 years ago (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), and remains an efficient and widely used measure of severity of depressive symptoms, appearing in over 500 studies (Steer, Beck, & Garrison, 1986). It is a 21-item scale derived from clinical observations. Items were chosen to assess the intensity of depression (see Appendix B).

Correlations between clinicians' ratings of depression and the BDI have ranged between .60 and .90 (Steer et al., 1986).

The BDI is frequently used to screen university undergraduates for depression. However this practice has received a great deal of criticism (Hammen, 1980; Kendall, Hollon, Beck, Hammen, & Ingram, 1987; Sacco, 1981). The difficulty with screening students who initially score above a certain cutoff, and then regarding these persons as "depressed" is that up to 50% will fall below that cutoff when tested again within even a few hours (Kendall et al., 1987). It has been recommended that individuals who meet a pre-specified criterion for depression be re-tested on the day of the experiment to ensure that there scores are stable (Kendall et al., 1987; Sacco 1981). The current investigation selected individuals who scored 12 or above on the BDI, the criterion for mild dysthymia (Steer et al., 1986). In order to insure stability of these scores subjects were re-assessed on the day they completed the laboratory procedures.

Dependent Measures

Interpersonal and Task Goals in the Interaction. Likert-type items to assess interpersonal versus task goals in the interaction were constructed. Three items which measure the degree of motivation by task goals (eg. To what extent were you focused on achieving your goals in the task?) and three items which measure the degree to which subjects were motivated by interpersonal, relational goals (eg. To what extent did you wish

to maintain an agreeable relationship between you and your partner?) were included (Appendix C). Each set of three items was summed to yield two scores, interpersonal and task goals.

Interaction Concerns. Subjects were asked to assess their concerns within the social interaction. Items to assess these concerns were taken from the PSI and modified to be situation specific (Appendix D). Six Likert type items were constructed to address the three factors of sociotropy assessed by the PSI, Other's evaluation (eg. To what extent was it important that your partner approved of you?), Dependency (eg. To what extent did you feel dependent on your partner during the interaction?) and Pleasing others (eg. To what extent did you try to please your partner?). Internal consistency as measured by the Alpha coefficient for this six-item scale was found to be .74 in the current sample (N=96). Therefore, the six items in this scale were summed to assess sociotropic concerns in the interaction.

To assess autonomy concerns, six Likert-type items were constructed to address the three factors of autonomy assessed by the PSI, Need for control (eg. To what extent did you feel controlled by your partner?), Defensive-Separation (eg. To what extent did you try to keep your partner at a distance?), and Perfectionism (eg. To what extent did you feel that the interaction didn't measure up to your expectations?) Coefficient Alpha for this six-item scale was found to be .74 in

the current sample (N=96). The six items of this scale were summed to assess autonomous concerns in the interaction.

Perception of Partner Behaviour. Subjects were asked to give their perceptions of their partner's behaviour on Likert-type items assessing the six factors which underlie the autonomy and sociotropy scales of the Personal Style Inventory (Appendix E). Items to assess these perceptions were modified to be specific to the perception of another person. Six Likert type items were constructed to address the three factors of sociotropy assessed by the PSI, Other's evaluation (eg. To what extent did your partner think positively of you?), Dependability (eg. To what extent was your partner supportive of you in the task?) and Pleasing others (eg. To what extent was your partner pleased with you?). The Alpha coefficient for this six-item scale was found to be .74 in the current sample (N=96). Therefore, the six items of this scale were summed to assess sociotropic perceptions of the partner.

To assess autonomous perceptions, six Likert type items were constructed to address the three factors of autonomy assessed by the PSI, Controlling (eg. To what extent did your partner try to control you too much during the task?), Intrusiveness (eg. To what extent did your partner intrude on you?), and Perfectionism (eg. To what extent was your partner to perfectionistic?) Coefficient Alpha for this six-item scale was found to be .91 in the sample. The six items of this scale were

summed to assess autonomous perceptions of the partner in the interaction.

Likeability of Partner. In order to assess the degree to which both confederates and subjects liked their partner, eight items used in past research to assess likeability (Howes & Hokanson, 1979; Stephens & Hokanson, 1987), were used. Individuals are asked the degree to which they would enjoy engaging in a variety of activities with the target individual (Appendix F). The alpha coefficient for this scale was .91 in the current samples (N=96). Ratings from these eight items are summed to yield a likeability score.

This measure allowed the examination of differences in the degree of liking of the confederate by autonomous and sociotropic individuals and the degree of liking of the autonomous or sociotropic subjects by the confederate.

Positive and Negative Affect Scales. The Positive and Negative Affect Scales (PANAS) were developed by Watson, Clark, and Tellegen (1988) in order to efficiently measure positive and negative affect. Positive Affect assesses the degree of enthusiasm, activity and activation in an individual. It is a state of high energy and pleasurable feelings. Negative Affect is a dimension of subjective distress and displeasure. It includes states of anger, contempt, disgust, guilt, fear, and nervousness (Watson et al., 1988). The PANAS scale was designed

to measure positive and negative affect in a more reliable and valid way than those scales developed in an informal or ad-hoc way.

The PANAS includes ten adjectives assessing positive affect and ten adjectives assessing negative affect (Appendix G). Internal consistency (coefficient alpha) for the Positive Affect (PA) scale ranges from .86 to .90 and for the Negative Affect (NA) scale ranges from .84-.87. Factorial validity analyses show that the scales have two factors which account for between 62.8 and 68.7 percent of their total variance. No items in the PA scale loaded on the NA factor or vice versa. Factor loadings for each item with their respective PA or NA factors ranged from .52 to .75 and were highly consistent. The positive affect scale correlates -.29 with the HCSL (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), a general measure of stress and dysfunction. The negative affect scale correlates .65 with the HCSL. Furthermore, the positive affect scale and negative affect scale correlate -.36 and .58 respectively with the BDI. Thus the scales seem reliable and valid.

The authors indicate that the PANAS can be a measure of state affect or trait affect simply by altering the instructions give to subjects (Watson et al., 1988). That is subjects can be asked to what extent they feel this way at this very moment or have felt this way in the past year, or in general. When used as a current state measure, positive affect increases significantly after positive social events, such as movies or

parties (Clark & Watson, 1988), and exercising (Watson, 1988) and decreases significantly after boredom or a work related activity. Negative affect increases after arguments, daily hassles (such as missing a bus, losing something), and concerns about relationships (Clark & Watson, 1988), as well as illness (Watson, 1988). A laboratory interaction has also been found to cause affect changes (McIntyre, Watson, Clark, & Cross, 1991). These findings suggest that the PANAS is sensitive to temporary changes in affective states.

In this study the PANAS was given to subjects before and after their interaction, thus allowing the measurement of affective changes attributable to the interaction.

Results

Classification Variables

Level of Dysphoria. In order to ensure similar levels of dysphoria in the selected sociotropic and autonomous groups for both the controlling and passive confederate roles, a one-way, between groups analysis of variance (ANOVA) was performed. The four groups (Sociotropic-Controlling X=15.61, N=22, Sociotropic-Passive X=14.46, N=24 Autonomous-Controlling X=16.27, N=24, Autonomous-Passive X=16.13, N=22) did not differ significantly on level of depression, p > .05 (See Table 1).

Manipulation Checks. A 2 (sociotropic vs. autonomous) x 2 (controlling vs. passive role) between groups multivariate analysis of variance (MANOVA) was carried out on manipulation

check measures, warmth, and script deviations. There were no significant differences between the groups or roles on warmth or number of script deviations, all Fs < 1, p>.05. Means and standard deviations for these measures are shown in Table 2. This result indicates that the roles were represented with equal accuracy and that confederates did not differ on the dimension of warmth in the two roles.

Dependent Variables

To examine the dependent variables, a 2 x 2 between groups MANOVA was performed with sociotropic or autonomous classification as the first factor (group) and confederate behaviour (role) as the second factor. The dependent variables were: (1) interpersonal goals (2) task goals (3) sociotropic concerns (4) autonomous concerns (5) sociotropic partner perceptions (6) autonomous partner perceptions (7) confederate liking (8) partner liking.

To ensure homogeneity of group variances, Bartlett's-Box F procedure was employed. Wilks's lambda served as the overall criterion of significance in the analysis, followed by univariate tests in the case of overall significance.

Overview. A significant overall effect on the eight dependent variables was found for the Group Factor, p < .001 and an overall significant effect was found for the Role factor, p < .001. There were no significant overall interaction effects.

Interpersonal and Task Goals in the Interaction. On the items measuring interpersonal goals, univariate tests showed a significant effect for the Group factor, $F(1,92)=17.02$, $p < .01$. The mean of the Sociotropic group was significantly higher on this measure (Table 3). This result indicates that sociotropic individuals were more motivated by interpersonal goals that their autonomous counterparts.

On items measuring task goals, no significant effects were found for either the Group or Role factor. This indicates that the two groups did not differ in the extent to which they were motivated by task goals and that task goals were invariant across the two confederate roles.

Interaction Concerns. On the items measuring sociotropic concerns in the interaction, a significant main effect for the Group factor was found, $F(1,92)=9.02$, $p<.01$. The mean on this measure was higher in the Sociotropic group (Table 3). This indicates that sociotropic individuals were more concerned about receiving a positive evaluation, were more dependent on their partner, and had tried harder to please their partner.

On items measuring autonomous concerns, a main effect was found for the Role factor, $F=6.65$, $p<.05$. The mean for this measure was higher for the Controlling role, across the two groups (Table 4). Thus, the controlling partner resulted in both groups feeling more controlled, and defensive, and also resulted in the setting of more perfectionistic standards by

subjects. Additionally, there was a trend toward significance for the Group factor on the autonomy measure, $\underline{F}$=3.13, $\underline{p}$<.09. The mean for this measure (Table 3) was higher in the autonomous group. Thus there was some indication that regardless of role, autonomous individuals felt more controlled, and defensive and that they were more perfectionistic than their sociotropic counterparts.

Perception of Partner Behaviour. On the items assessing sociotropic perceptions, a significant main effect was found for the Group factor, $\underline{F}$(1,92)=8.31, $\underline{p}$<.01. The mean for this measure was significantly elevated in the Sociotropic group (Table 3). This indicates that, regardless of the confederate role, sociotropic subjects perceived their partner as evaluating them more positively, as being pleased with them, and as being more dependable.

On the items measuring perceptions of autonomy, a main effect was found for Role, $\underline{F}$(1,92)=35.10, $\underline{p}$<.001. The mean for the Controlling role was significantly higher on this measure (Table 4). This indicates that the Controlling confederate was accurately seen as acting in a more controlling manner, enacting more intrusive behaviour, and as having more perfectionistic expectations. A main effect was also found for the Group factor, $\underline{F}$(1,92)=4.48, $\underline{p}$<.05. The mean for this measure (Table 3) was significantly higher in the autonomous group. This result indicates that, regardless of the confederates'

controlling or passive behaviour, autonomous individuals saw the confederate as more controlling, and intrusive and as having more perfectionistic expectations.

Partner Liking. On the measures which assessed degree of confederate likeability, a significant main effect emerged for both Role and Group factors. Univariate tests revealed a significant effect for the Group factor on confederate likeability, $F(1,92)=7.24$, $p<.01$. The mean for this measure was higher in the sociotropic group (Table 3). This result indicates that, regardless of the confederate's behaviour, sociotropic individuals liked their interaction partner more than did autonomous individuals. A significant effect for the Role factor also emerged, $F(1,92)=6.30$, $p<.05$. The mean for this measure was significantly higher in Role 2, the passive role (Table 4). Thus, the passive confederate was liked better by both groups than was the controlling confederate.

On the measure of subject likeability, univariate tests revealed a significant effect for the Group factor, $F(1,92)=11.68$, $p<01$. The mean of the sociotropic group (Table 3) was significantly higher on this measure. This indicates that sociotropic individuals were better liked by the confederates than their autonomous counterparts.

Affect Measures. For the measure assessing Positive Affect a 2 (sociotropic vs. autonomous groups) x 2 (controlling vs. passive

confederate) repeated measures MANOVA was carried out with Pre-interaction Positive Affect and Post-interaction positive affect as the dependent measures. No significant effects emerged for between- or within-subject factors, indicating that no positive affect changes occurred as a result of the interaction.

For the measure assessing Negative Affect a 2 (sociotropic vs. autonomous groups) x 2 (controlling vs. passive confederate) repeated measures MANOVA was carried out with Pre-interaction Negative Affect and Post-interaction Negative affect as the dependent measures. No significant effects emerged for between or within subject factors, indicating that no negative affect changes occurred as a result of the interaction.[1]

DISCUSSION

Overview

To summarize the present findings, sociotropic subjects were more motivated by interpersonal goals in the interaction than autonomous subjects, although the two groups did not differ in their task goals. Sociotropic individuals were more dependent on their partners and felt that they had to rely on them to a greater extent for support, help, and advice. These individuals also evidenced greater concern about behaving in such a way as to please their partner and were more concerned about their partner's evaluation of them than were autonomous subjects. Sociotropic individuals felt their partner had evaluated them more positively, was more dependable, and was more pleased with them than did the autonomous individuals. On the other hand,

autonomous individuals felt that they were being intruded upon by their partner during the interaction, that their partner had acted in a controlling manner, and that their partner had perfectionistic standards. Finally, sociotropic subjects were better liked by confederates than were autonomous subjects and sociotropics rated the confederates as more likeable.

Experimental Manipulation

Sociotropic and autonomous individuals participating in the task perceived the confederate as enacting different behaviours in the two roles. The controlling role resulted in subjects of both groups rating the confederate as enacting more controlling and intrusive behaviours and as having perfectionistic standards. Moreover, both groups of subjects tended to feel defensive and controlled by their partner in that role. Additionally, both groups tended to like the passive partner to a greater extent. Ratings by the experimenter demonstrated that both roles were carried out with equal accuracy and levels of warmth. Thus it appears that the manipulation of roles was achieved and that differences were in the planned direction.

Hypotheses

The first hypothesis regarding interpersonal vs. task goals during the interaction was partially supported, with a main effect for the group factor emerging on interpersonal goals. Sociotropic individuals were more motivated by interpersonal goals than were autonomous subjects. These individuals were

interested in the interaction proceeding smoothly and in getting along well with their partner. This was of much less interest to the autonomous subjects. This is consistent with theory that predicts greater motivation to maintain interpersonal relationships in sociotropic individuals (Beck, 1983).

It is less clear why autonomous subjects did not have greater interest in task goals than sociotropic subjects. It is possible that this particular task (eg. creating a fitness plan) did not activate the theorized need for achievement that these individuals are thought to possess. Alternatively, it may simply be that autonomous individuals are no more concerned about achieving their goals than their sociotropic counterparts, though they may be less focused on the interpersonal aspects of a situation. The latter explanation would certainly require further empirical inquiry through the use of other, perhaps somewhat more achievement oriented, tasks. Such an explanation would appear to be consistent with research on stress-diathesis models which finds a greater relationship for interpersonal loss and sociotropy than it does for achievement events and autonomy (Hammen et al., 1985; Hammen & Goodman-Brown, 1989; Robins & Block, 1988, Robins, 1990, Segal et al., 1989; Zuroff & Mongrain, 1987, Zuroff et al., 1990). It may be that autonomous individuals are not necessarily or exclusively schematic for achievement events, but more concerned with interpersonal themes of power, individuation, and mastery (Blatt & Zuroff, 1992). Perhaps autonomous individuals are schematic for and more prone

to become depressed in response to situations in which their sense of mastery or individuation is threatened. Such events, though certainly distinct from the interpersonal rejection which has been found to negatively impact sociotropic individuals, may nonetheless contain important interpersonal components.

These findings may therefore have important implications for diathesis-stress models of depression, highlighting the need for precise operational definitions of stressful events and the need for further elucidation of the factors which underlie the construal of interpersonal events as negative. In light of the current findings, it may well be that sociotropic and autonomous individuals attach different meanings to similar interpersonal events.

The second hypothesis regarding interaction concerns for sociotropic and autonomous groups was partially confirmed with a main effect for the group factor on sociotropic concerns and a trend toward significance on autonomy concerns. Sociotropic individuals were more dependent on their partners, relying on them to a greater extent for support, help, and advice. Additionally, sociotropic individuals were more concerned about behaving in such a way as to please their partner than were the autonomous subjects and were more concerned about whether they had been positively evaluated by their partner. There was a trend suggesting that autonomous individuals were more concerned about being controlled in the interaction, defensively

separating themselves from their partner, and setting perfectionistic standards.

A significant main effect for partner role on interaction concerns also emerged. Not surprisingly, both groups of subjects felt more controlled and defensive when the confederate was enacting the controlling role. This finding indicates that the role was perceived differently and accurately by subjects.

These results show that to some extent sociotropic and autonomous individuals do have different concerns when they are interacting with others, and that these differences are in the hypothesized direction. Sociotropic individuals are indeed more dependent on others, try harder to please them, and are concerned with how they will be evaluated. This finding is consistent with research findings that dependent, non-depressed women are more likely to use compromise in resolving conflicts with boyfriends (Blatt & Zuroff, 1992).

The third hypothesis regarding perception of the partner behaviour was supported. A main effect was found for both the Group and Role factors on the measures of partner perception. An overall main effect for role indicated that both sociotropic and autonomous subjects perceived their partner as being markedly different in the two roles. In the controlling role the partner was seen as enacting more controlling behaviours, as acting intrusively, and as having high, perfectionistic standards. This result further indicates that the two roles

were perceived differently and that the partner's behaviour was construed accurately by the subjects.

An overall significant effect also emerged for the group factor on the perception of partner measures. The partner was perceived differently by the two groups across the two disparate roles. Regardless of the partner's passive or controlling behaviour, sociotropic individuals believed that their partner had evaluated them more positively, was more pleased with them, and had been more dependable than did the autonomous individuals. Autonomous subjects felt that the partner had acted in a controlling manner, had behaved intrusively, and had perfectionistic standards.

Again, despite the salient differences in the situation, these perceptions of the partner were consistent across roles in the two groups. These significant main effects suggest that sociotropic and autonomous individuals perceive others differently, as predicted, across different situations. Though these situational differences may be perceived, it appears that the perception of another person is nonetheless modified by an individual's being sociotropic or autonomous.

The fourth hypothesis regarding likeability of the confederate partner was supported. A significant main effect for the group factor occurred. Regardless of role, sociotropic individuals judged their partner as more likeable than did autonomous individuals. This finding is consistent with the greater interpersonal focus of sociotropic individuals, and the

fact that these individuals were more interested in pleasing their partner. On the other hand autonomous individuals felt defensive, that their partner had intruded upon them and that their partner was perfectionistic. It is not surprising then that the two groups rated their partner's likeability differently. Again, the likeability of the confederate was stable across the large, perceived situational difference, and would suggest that sociotropic individuals respond to individuals more positively across a variety of situations.

There was also a main effect for the role factor on the dependent measures. Regardless of whether individuals were sociotropic or autonomous, the passive partner was rated as more likeable than the controlling partner. This result again suggests that the manipulated roles were different and that this difference was perceived by subjects.

The fifth hypothesis regarding likeability of subjects was supported. Sociotropic subjects were better liked by confederates than were autonomous subjects. This finding is consistent with previous results which found that self-critical (DEQ) females participating in an interaction were judged as less likeable by peer raters (Zuroff et al., 1983). This previous study used non-participant judges to rate likeability of the target. It is now clear that this difference in likeability is also perceived by an actual participant in the interaction. This result is also interesting in that it appears that sociotropic and autonomous individuals may be aware of the

impact they are having on others. As previously discussed, sociotropic individuals felt that their partner was more pleased with them and had evaluated them more positively than did autonomous individuals. This perception appears to have been quite correct. Sociotropic individuals were indeed judged as more likeable by their partners.

The sixth hypothesis regarding affective changes across the interaction was not supported. Indeed, no significant findings emerged on the affective measures. It appears that the interaction did not alter the affective state of the subjects. This is of significance to interpersonal models of depression which postulate that interpersonal interactions result in increased negative affect in depressed individuals, thereby exacerbating depression (Coyne, 1976). It is possible that the nature of the interaction was not of a quality that such changes would occur or that the interaction was not of a sufficient duration to effect such changes.

Future Research Questions

The current findings leave some unresolved issues which might be profitably addressed by future research. The finding that sociotropic individuals are more likeable than autonomous individuals poses several as yet unanswered questions. First, what specifically do autonomous and sociotropic persons do that makes them more or less likeable? It would be illuminating to examine specific behaviours which might result in autonomous

individuals being judged as less likeable than sociotropic persons. At this point it is unclear what behavioural dimensions might most efficaciously be assessed and what instruments might be appropriate in such research.

Second, it has been suggested that the behaviour of both sociotropic and autonomous individuals eventually results in interpersonal rejection (Beck, 1983) a view which is consistent with interpersonal models of depression (Coyne, 1976). The current results suggest that autonomous individuals are indeed less liked than sociotropic individuals after a fairly brief interaction. The process by which these persons might be rejected by others appears to be quite salient and immediate. Upon meeting someone for the first time they act in a way that makes them less likeable than their sociotropic counterparts. Further, it appears that autonomous individuals are less likely to try to please their partner and because of their lack of interpersonal focus, may be not be distressed by their lack of likeability.

It appears that, upon an initial meeting and subsequent brief interaction, sociotropic individuals are liked to a greater extent than their autonomous counterparts. The process which may ultimately result in the rejection of sociotropic individuals is not apparent in these results. Such a result may have a number of implications. First, it may suggest that sociotropic individuals may not particularly provoke interpersonal rejection from others as has been previously

suggested. However, this would not imply that these individuals are not keenly sensitive to rejection when it does occur. In fact, the interpersonal focus that these individuals endorse would seem to sensitize them to rejection. It may be that they are no more likely to suffer such a loss, other things being equal, than any other individual, but that they are acutely attuned to such rejection when it does occur. However, other as yet untested possibilities exist.

It may be that the behaviour of sociotropic individuals leads ultimately to rejection after the passage of time. Sociotropic individuals indicate that they are more dependent on others and that they try to please them. Behaviour that is initially affiliative may eventually be perceived as excessively needy and dependent thereby leading to rejection.

Third, it may be that sociotropic individuals would be less likeable than another group of non-dysphoric individuals, a possibility not examined in the current study. Thus sociotropics may only be likeable relative to their autonomous counterparts, and be more rejected than another comparison group. To address this possibility, one would need a third, non-dysthymic comparison group. However, this poses the question of which group of individuals would provide the most meaningful comparison in terms of likeability. Three possibilities exist: 1) non-dysthymic sociotropic or autonomous individuals, 2) non-dysthymic individuals low on both sociotropy and autonomy or 3) non-dysthymics high on both scales. Although

it is unclear what additional comparison group is most appropriate, the lack of such a comparison group makes any conclusion speculative. The data do however allow the theoretically consistent conclusion that autonomous individuals are less liked than sociotropic individuals.

Theoretical Implications

The present findings have a number of implications for theoretical views of the excessive dependency and autonomy. Blatt (1974) believed that excessive dependency resulted in an anaclitic depression which was characterized by feelings of helplessness and weakness. Introjective depression, caused by excessive autonomy, was thought to result in excessive concern about achieving goals and feelings of worthlessness. Arieti and Bemporad (1980) created similar constructs, distinguishing between excessive reliance on a "dominant other" or "dominant goal" and postulating that congruent negative life events result in depression. The present findings suggest that sociotropy may indeed be related to feelings of helplessness, dependency and excessive reliance on others. However, autonomy does not necessarily appear to be related to a greater preoccupation with achievement goals, a finding which is inconsistent with the theoretical views of Blatt and Arieti and Bemporad. From the present findings it appears instead that autonomy is related to greater concerns about intrusion and over-control and that this

construct may be somewhat more interpersonal in nature than previously thought.

The present results are quite consistent with Beck's theoretical views of sociotropy and autonomy. Beck (1983) defined sociotropy as "the person's investment in positive interchange with others" (p. 272) and autonomy as "the persons's investment in preserving and increasing his independence, mobility, and personal rights." (p.272). The current findings support the view that sociotropics are more concerned with creating a positive interpersonal interchange and suggest that autonomous persons are indeed concerned with infringement of their freedom and independence in the interpersonal realm.

Implications for Psychotherapy

Overall, sociotropics appear to be more interpersonally oriented and more affiliative in interactions. This orientation results in differential perception of others as well as perceptible differences in behaviour. Sociotropic individuals are better liked and try harder to please others than their autonomous counterparts. The latter group is less concerned about their interpersonal impact and perceive others' behaviour in a more negative, defensive fashion. These differences, apparent after a brief laboratory interaction, would most likely be apparent in a variety of interpersonal settings, quite possibly including psychotherapy. Consistent with Beck's theorizing, sociotropes may indeed prefer a warmer, more

interpersonal focus for therapy and may play a very active part in creating such a therapeutic relationship.

Autonomous individuals may be less likely to be interested in the formation of a close interpersonal alliance and may, in fact, be acting in such a way as to prevent the establishment of such a relationship. Thus the current results could imply a differential response to psychotherapy in the two depressive subtypes. Recent work (Peselow, Robins, Sanfilipo, Block, & Fieve, 1992) has shown that individuals who are high in autonomy show much greater responsiveness to anti-depressant medication than do persons high in sociotropy (74% vs. 39%). Perhaps patients high in sociotropy would be more likely to respond positively to therapy involving a significant interpersonal component. Such therapy might focus largely on interpersonal issues, including relationships with significant others, which may play a very significant role in the depression of the sociotropic individual. However, it is also clear from the current study that autonomous individuals display distinctive and maladaptive interpersonal behaviours which might be examined and modified in therapy. Such interpersonal behaviours were not the target of therapy in the Peselow et al. study; it is possible that the greater response to pharmacotherapy in the autonomous group was simply by default. That is, given the absence of a comparative therapy we know only the relative effectiveness of pharmacotherapy in each group. Greater gains

might be possible in both groups via the application of other therapeutic techniques.

Limitations of the Current Study

The current study suggests that there are significant interpersonal differences between sociotropic and autonomous individuals and that these differences exist across salient situational variability. There are however a number of cautions to be heeded in interpreting the data.

First, the design of the study does not allow causal inferences to be made. It may well be that group differences are the result of an unassessed variable that systematically differs in sociotropic and autonomous individuals. Although groups were equated on the important variable of level of depression, they may have differed in other ways that were not measured.

Second, these results may not generalize to persons with clinical levels of depression. Whether individuals who are clinically depressed and differentiated on sociotropy and autonomy would show similar perception and behavioural differences in interpersonal interactions is an empirical question.

Third, these findings may not generalize from the structured laboratory situation provided in the current study to daily encounters. Though fairly strong differences emerged in a brief interaction, whether these differences would emerge in the daily

interactions of sociotropic and autonomous individuals may provide an interesting question for future research.

Finally, only one gender was assessed in the current study. Given that sociotropy and autonomy may have differing correlates in each gender (Chevron et al., 1978; Zuroff et al., 1983), the present pattern of findings may not be replicated with male samples.

Despite these limitations, the current results do suggest that there are important interpersonal differences in sociotropic and autonomous dysthymics. Further studies might examine whether this pattern of results is replicated in a mixed gender sample of clinically depressed individuals. The most interesting question may be what implications these interpersonal differences have for the conduct and outcome of psychotherapy.

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Table 1. BDI Means and Standard Deviations in Sociotropic and Autonomous Groups across Passive and Controlling Confederates.

	Sociotropic	Autonomous
Controlling Role	15.61 (4.00)	16.26 (5.20)
Passive Role	14.45 (3.95)	16.13 (4.83)

Table 2. Warmth and Script Deviations Means and Standard Deviations in Sociotropic and Autonomous Groups across Passive and Controlling Confederates.

	Sociotropic	Autonomous
Warmth		
Controlling Role	3.70 (0.47)	3.69 (0.62)
Passive Role	3.75 (0.68)	3.69 (0.56)
Script Deviations		
Controlling Role	2.48 (0.79)	2.27 (0.67)
Passive Role	2.38 (0.97)	2.09 (0.60)
N	47	49

Table 3. Dependent Variables Means and Standard Deviations Across Sociotropic and Autonomous Groups.

	Sociotropic	Autonomous	
Interpersonal Goals	5.78 (0.68)	4.98 (1.12)	**
Task Goals	4.33 (1.13)	4.29 (1.22)	
Sociotropic Concerns	25.12 (5.65)	21.24 (6.84)	**
Autonomous Concerns	18.79 (6.54)	21.16 (6.48)	
Sociotropic Perceptions	30.34 (4.87)	27.35 (5.10)	**
Autonomous Perceptions	15.12 (7.91)	18.67 (9.06)	*
Confederate Liking	36.62 (7.10)	32.59 (7.30)	**
Subject Liking	32.32 (9.63)	25.43 (9.93)	**
N	47	49	

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

Table 4. Dependent Variables Means and Standard Deviations Across Controlling and Passive Confederate Roles.

	Controlling	Passive
Interpersonal Goals	5.24 (1.02)	5.51 (1.00)
Task Goals	4.24 (1.14)	4.37 (1.21)
Sociotropic Concerns	22.88 (6.19)	23.43 (6.96)
Autonomous Concerns	21.65 (7.39)	18.27 (5.15) *
Sociotropic Perceptions	28.29 (5.22)	29.36 (5.14)
Autonomous Perceptions	21.35 (8.45)	12.34 (6.18) **
Confederate Liking	32.71 (7.11)	36.48 (7.37) *
Subject Liking	28.96 (11.31)	28.63 (9.32)
N	49	47

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

Footnotes

[1] An additional analysis on affective measures was performed utilizing pre-interaction affect as a covariate. An ANCOVA carried out on post-interaction positive affect utilizing pre-interaction positive affect as a covariate showed no significant main or interaction effects, $p > .05$. An ANCOVA carried out on post-interaction negative affect utilizing pre-interaction negative affect as a covariate showed no significant main or interaction effects, $p > .05$.

Appendix A

Here are a number of statements about personal characteristics. Please read each one carefully, and indicate whether you agree or disagree, and to what extent, by circling a number.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I often put other people's needs before my own.	1	2	3	4	5	6
2. I tend to keep other people at a distance.	1	2	3	4	5	6
3. I find it difficult to be separated from people I love.	1	2	3	4	5	6
4. I am easily bothered by other people making demands of me.	1	2	3	4	5	6
5. I am very sensitive to the effects I have on the feelings of other people.	1	2	3	4	5	6
6. I don't like relying on others for help.	1	2	3	4	5	6
7. I am very sensitive to criticism by others.	1	2	3	4	5	6
8. It bothers me when I feel that I am only average and ordinary.	1	2	3	4	5	6
9. I worry a lot about hurting or offending other people.	1	2	3	4	5	6
10. When I'm feeling blue, I don't like to be offered sympathy.	1	2	3	4	5	6
11. It is hard for me to break off a relationship even if it is making me unhappy.	1	2	3	4	5	6
12. In relationships, people are often too demanding of one another.	1	2	3	4	5	6
13. I am easily persuaded by others.	1	2	3	4	5	6
14. I usually view my performance as either a complete success or a complete failure.	1	2	3	4	5	6

-2-

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
15. I try to please other people too much.	1	2	3	4	5	6
16. I don't like people to invade my privacy.	1	2	3	4	5	6
17. I find it difficult if I have to be alone all day.	1	2	3	4	5	6
18. It is hard for me to take instructions from people who have authority over me.	1	2	3	4	5	6
19. I often feel responsible for solving other people's problems.	1	2	3	4	5	6
20. I often handle big decisions without telling anyone else about them.	1	2	3	4	5	6
21. It is very hard for me to get over the feeling of loss when a relationship has ended.	1	2	3	4	5	6
22. It is hard for me to have someone dependent on me.	1	2	3	4	5	6
23. It is very important to me to be liked or admired by others.	1	2	3	4	5	6
24. I feel badly about myself when I am not actively accomplishing things.	1	2	3	4	5	6
25. I feel I have to be nice to other people.	1	2	3	4	5	6
26. It is hard for me to express admiration or affection.	1	2	3	4	5	6
27. I like to be certain that there is somebody close I can contact in case something unpleasant happens to me.	1	2	3	4	5	6
28. It is difficult for me to make a long-term committment to a relationship.	1	2	3	4	5	6

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	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
29. I am too apologetic to other people.	1	2	3	4	5	6
30. It is hard for me to open up and talk about my feelings and other personal things.	1	2	3	4	5	6
31. I am very concerned with how people react to me.	1	2	3	4	5	6
32. I have a hard time forgiving myself when I feel I haven't worked up to my potential.	1	2	3	4	5	6
33. I get very uncomfortable when I'm not sure whether or not someone likes me.	1	2	3	4	5	6
34. When making a big decision, I usually feel that advice from others is intrusive.	1	2	3	4	5	6
35. It is hard for me to say "no" to other people's requests.	1	2	3	4	5	6
36. I resent it when people try to direct my behavior or activities.	1	2	3	4	5	6
37. I become upset when something happens to me and there's nobody around to talk to.	1	2	3	4	5	6
38. Personal questions from others usually feel like an invasion of my privacy.	1	2	3	4	5	6
39. I am most comfortable when I know my behavior is what others expect of me.	1	2	3	4	5	6
40. I am very upset when other people or circumstances interfere with my plans.	1	2	3	4	5	6
41. I often let people take advantage of me.	1	2	3	4	5	6

-4-

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
42. I rarely trust the advice of others when making a big decision.	1	2	3	4	5	6
43. I become very upset when a friend breaks a date or forgets to call me as planned.	1	2	3	4	5	6
44. I become upset more than most people I know when limits are placed on my personal independence and freedom.	1	2	3	4	5	6
45. I judge myself based on how I think others feel about me.	1	2	3	4	5	6
46. I become upset when others try to influence my thinking on a problem.	1	2	3	4	5	6
47. It is hard for me to let people know when I am angry with them.	1	2	3	4	5	6
48. I feel controlled when others have a say in my plans.	1	2	3	4	5	6

Appendix B

BDI _____ Date: _____
_____

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

This questionnaire consists of 21 groups of statements. After reading each group of statements carefully, circle the number (0, 1, 2 or 3) next to the one statement in each group which **best** describes the way you have been feeling the **past week, including today.** If several statements within a group seem to apply equally well, circle each one. **Be sure to read all the statements in each group before making your choice.**

1
0 I do not feel sad.
1 I feel sad.
2 I am sad all the time and I can't snap out of it.
3 I am so sad or unhappy that I can't stand it.

2
0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve.

3
0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life, all I can see is a lot of failures.
3 I feel I am a complete failure as a person.

4
0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything.

5
0 I don't feel particularly guilty.
1 I feel guilty a good part of the time.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6
0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7
0 I don't feel disappointed in myself.
1 I am disappointed in myself.
2 I am disgusted with myself.
3 I hate myself.

8
0 I don't feel I am any worse than anybody else.
1 I am critical of myself for my weaknesses or mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.

9
0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10
0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't cry even though I want to.

11
0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12
0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.

13
0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

_____ Subtotal Page 1   **CONTINUED ON BACK**

14	0	I don't feel I look any worse than I used to.	**19**	0	I haven't lost much weight, if any, lately.
	1	I am worried that I am looking old or unattractive.		1	I have lost more than 5 pounds.
	2	I feel that there are permanent changes in my appearance that make me look unattractive.		2	I have lost more than 10 pounds.
	3	I believe that I look ugly.		3	I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes _____ No _____

15
- 0 I can work about as well as before.
- 1 It takes an extra effort to get started at doing something.
- 2 I have to push myself very hard to do anything.
- 3 I can't do any work at all.

20
- 0 I am no more worried about my health than usual.
- 1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
- 2 I am very worried about physical problems and it's hard to think of much else.
- 3 I am so worried about my physical problems that I cannot think about anything else.

16
- 0 I can sleep as well as usual.
- 1 I don't sleep as well as I used to.
- 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
- 3 I wake up several hours earlier than I used to and cannot get back to sleep.

21
- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to be.
- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

17
- 0 I don't get more tired than usual.
- 1 I get tired more easily than I used to.
- 2 I get tired from doing almost anything.
- 3 I am too tired to do anything.

18
- 0 My appetite is no worse than usual.
- 1 My appetite is not as good as it used to be.
- 2 My appetite is much worse now.
- 3 I have no appetite at all anymore.

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

Appendix C

GOAL FOCUS

1.) To what extent were you focused on achieving your goals in the task?

2.) To what extent did you want to obtain your own objectives in the task?

3.) To what extent were you concerned about the goals that you wanted to achieve?

INTERPERSONAL FOCUS

1.) To what extent did you want everything to go smoothly between you and your partner?

2.) To what extent were you concerned about maintaining a good understanding between you and your partner?

3.) To what extent did you wish to maintain an agreeable relationship between you and your partner?

Appendix D

Interaction Concerns

SOCIOTROPY CONCERNS

Other's Evaluation

1.) To what extent was it important that your partner approved of you?

2.) To what extent were you concerned about what your partner thought of you?

Dependency

3.) To what extent did you rely on your partner for help?

4.) To what extent were you dependent on your partner during the task?

Pleasing Others

5.) To what extent did you try to please your partner?

6.) To what extent did you feel you had to be nice to your partner?

AUTONOMY CONCERNS

Need for Control

1.) To what extent were you upset when your partner interfered with your plans?

2.) To what extent did you feel controlled when your partner tried to influence you?

Defensive Separation

3.) To what extent did you try to keep your partner at a distance?

4.) To what extent were you comfortable relying on your partner for help?

Perfectionism

5.) To what extent did you feel that the interaction didn't live up to your expectations?

6.) To what extent did you feel that the interaction fell short of your standards?

Appendix E

Perception of Partner's Behaviour

SOCIOTROPY PERCEPTIONS

Other's Evaluation

1.) To what extent did your partner have a negative reaction to you?

2.) To what extent did your partner think positively of you?

Dependency

3.) To what extent was your partner supportive of you in the task?

4.) To what extent could you rely on your partner to provide support to you in making the decisions?

Pleasing Others

5.) To what extent was your partner pleased with you?

6.) To what extent did your partner seem pleased with your behaviour?

AUTONOMOUS PERCEPTIONS

Controlling

1.) To what extent did your partner try to control you too much during the task?

2.) To what extent did your partner try to influence you too much?

Intrusiveness

3.) To what extent did your partner intrude on you?

4.) To what extent was your partner too forward during the conversation?

Perfectionism

5.) To what extent did you think your partner's standards were too high?

6.) To what extent was your partner too perfectionistic?

Appendix F

We would like to get some idea of how you feel about your partner. Answer the following questions according to the scale below. Put the number that best describes the way 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 three hour

busride?

_____   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 G

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.

1	2	3	4
5			
very slightly	a little	moderately	quite a bit
extremely			
or not at all			

_____interested   _____irritable

_____distressed   _____alert

_____excited   _____ashamed

_____upset   _____inspired

_____strong   _____nervous

_____guilty   _____determined

_____scared   _____attentive

_____hostile   _____jittery

_____enthusiastic   _____active

_____proud   _____afraid

Appendix H

ROLE 1-CONTROLLING

Well, since I'm supposed to be helping you with exercising more maybe I should take control of things.

I guess we should figure out what kinds of things you should be doing and when you're going to do them.

Why don't we start by choosing the kinds of exercise you'll want to do.

We need to pick some activities that will build physical strength and also, something aerobic for cardiovascular fitness, ok?

Since we've got this schedule, I'll write this down for you.

Let's start with aerobic stuff. Now, that kind of exercise can be, like a team sport, or an individual activity like aerobics or dancing. The key, of course, is to increase your heart rate for at least a half an hour or so.

Since you're going to school and your schedule is already pretty hectic you probably wont have time for a serious team sport. I

really think aerobics would be ideal, they're good for you and a lot fun too. Oh, its best to start with low impact kind.

[If subjects say they don't like aerobics say: "Well, give them a try and if you don't like it try something like aquafit, the stuff they do in water."]

So let me write that down. [note at bottom of schedule]

[Pause and Think]

Now, your also going to really want to include something to increase your muscle tone.

The best exercise for strength and toning is really weight training and, again, you can do this on your own so its convenient. I guess there are many different kinds of weight training but free weights are probably best.

[If subjects say they don't know anything about weight training say: "Most gyms have instructors that will show you what to do."]

[If subjects say they dislike weight training say: "If you walk with some of those weights that they have for your ankles and wrists that might also do the trick."]

I'll also write down free-weight training. [note at the bottom of the schedule]

That should do it, unless you have something you'd like to add.

[Pause and Think]

All right. So I think you should do those two activities, and you should really do them at least 3 times a week.

Now... I suppose you can do aerobics and weights separately, but I think its probably best if you do them one after the other.

Its probably cheapest and most practical for you to work out on campus so you should look into that.

[Pause and Think]

OK, I think that the best time for you to exercise would be during lunch time. It gives you a nice break in the day and will give you some energy for the afternoon.

So lets see, [examine schedule]

Its always nice to have the weekends free so I think a Monday, Wednesday, Friday schedule makes the most sense.

It should take about an hour so I'll fill in from noon until one on those three days.

[If subjects have classes pick the hour closest to lunch for them]

All right, I think that if you do these two activities on a regular basis you'll be in great shape.

So... I'd say we're done.

ROLE 2- PASSIVE

OK, since I'm supposed to be helping you I think its important that you control things and tell me what kind of exercise you'd like to do.

I think Canada Fitness says that people need two types of exercise, one that increases cardiovascular fitness and another that will help to build strength. Would you like to work on one or both or something else?

[let subject direct to start area, and always return to italics. If they say "one" say "cardiovascular or strength?", if both say "Would you like to start with cardiovascular or strength?"]

I think cardiovascular exercise is something that would increase your heart rate for at least a half an hour or so, it can be done individually or in some kind of team sport. Are there any aerobic activities that you would like to try?

[wait for subject response, and then say:]

Maybe you'd like to write this down or should I?

[when subject gives aerobic activities say:]

That sounds pretty good.

Fine.

Great.

[If there are three or more activities say: "That will be tough
to fit in to your schedule, don't you think?"]

Is there anything else you might like to do, or is that it?

[wait for additional responses and then say:]

I guess strength exercise, develops muscle tone and usually
involves weight training. Do you think you'd like to try
something like that?

[wait for subject response]

That sounds pretty good.

Fine.

Great.

[If there are three or more activities say: "That will be tough to fit in to your schedule, don't you think?"]

What about [something aerobic] or [something for strength]? [say one or both depending on previous choice, or skip if all bases covered]

Anything else?

[wait and then say:]

Now. [pen drop] You may want to think about where you're going to work out. There are plenty of fitness clubs and community centres around and there are always the campus facilities. But I'll leave that up to you to decide on your own.

I guess they say its a good idea to be active on a regular basis. Do you have certain days that might work better than others?

[wait for days, if none forthcoming skip to times.]

And any specific times?

[wait for times, if none forthcoming say: "maybe you could check out a few places and find a time that suits you."]

[allow subject to create schedule and offer support, including nodding. then say:]

Would you like to fill out the schedule or should I?

[while completing schedule say:]

OK, that looks good.

I think that would be fine.

[When activities are scheduled say:]

Do you think this will help get you started?

[if no: say "Actually going that first day is always the toughest. But once you start it gets easier."]

[wait for response: allow other activities to be added or changed]

OK, that's great. Do you think maybe we're done?

Appendix I

What we are interested in studying is how people interact when they are trying to help each other with a problem. We believe that people use many different styles of helping behaviour and we're interested in finding out what those styles are and how effective the various strategies are.

So today we'd like you to take turns helping each other with a specific problem. Now, discussing problems in your own life may be a bit too personal so we are going to supply a problem for you to work on. We'd like you to consider how this issue affects your life while you are talking.

Do you have any questions so far?

The problem that we'd like you to discuss is exercising and fitness. Many people feel that they could improve themselves in this area and are unhappy with their level of activity. So try to think about how this issue impacts on your life and what you could do to be more fit.

While you two are talking I'll be behind the one-way mirror. When you think you're finished with this first problem just let me know and I'll come back in. I'll let you know when I get back there and then you can begin.