



eCOMMONS

Loyola University Chicago
Loyola eCommons

Master's Theses

Theses and Dissertations

1982

Behavior of Depressed Subjects in Impersonal and Interpersonal Situations

Linda. Brownell
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_theses



Part of the [Psychology Commons](#)

Recommended Citation

Brownell, Linda., "Behavior of Depressed Subjects in Impersonal and Interpersonal Situations" (1982).
Master's Theses. 3239.

https://ecommons.luc.edu/luc_theses/3239

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).
Copyright © 1982 Linda. Brownell

301
BEHAVIOR OF DEPRESSED SUBJECTS IN IMPERSONAL
AND INTERPERSONAL SITUATIONS

by

Linda Brownell

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

April

1982

ACKNOWLEDGEMENTS

My sincerest thanks go to my committee members, Drs. James Johnson and Thomas Petzel, for their help in conducting this study and in preparing this thesis. Additionally, I am grateful to Mike Bresolin, Peggy Dorsher, and Mary Locke for their continued support of me as I worked.

VITA

The author, Linda Brownell, was born December 17, 1957, in Evanston, Illinois.

She attended Evanston Township High School for four years, graduating in 1975, and went on to complete a year at Bucknell University in Lewisburg, Pennsylvania. She completed her undergraduate work at Northwestern University, in Evanston, Illinois, earning a Bachelor of Arts degree in psychology. She graduated in June, 1979.

She is presently enrolled in the doctoral program in clinical psychology at Loyola University of Chicago and is currently in her third year of studies there.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
VITA	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
CONTENTS OF APPENDICES	vi
INTRODUCTION AND REVIEW OF LITERATURE	1
Reinforcement	2
Social Skills Deficits	5
Deficits Associated with Depression	9
Behavioral and Situational Contexts	10
STATEMENT OF PROBLEM AND HYPOTHESES	15
Task Focus	15
Personal Focus	16
Task and Personal Focus Compared	18
Questionnaire	19
METHOD	21
Subjects	21
Materials	21
Procedure	25
RESULTS	28
Exercise Performance	28
Product Influence, Importance of Contributions, and Leadership	29
Speech Frequency	33
Likeability	34
Self-Disclosure	34
Questionnaire	35
DISCUSSION	38
SUGGESTIONS FOR FUTURE RESEARCH	43

TABLE OF CONTENTS (Cont'd)

	Page
REFERENCES	45
APPENDIX A	51

LIST OF TABLES

Table	Page
1. Number of Subjects in Each Cell	22
2. Mean Rankings Made by Nondepressed Subjects of the Relative Importance of the Contributions of Group Members	31
3. Mean Rankings Made by Female Subjects of the Relative Importance of the Contributions of Group Members	32
4. Means and Standard Deviations for Questions One through Ten on the Group Process Questionnaire	37

LIST OF FIGURES

Figure	Page
1. Research in Depression Arranged Along the Dimensions of Focus and Context	12

CONTENTS OF APPENDICES

	Page
APPENDIX A Materials	50
I. Individual Worksheet	51
II. Group Worksheet	52

INTRODUCTION AND REVIEW OF LITERATURE

Lewinsohn defines depression as a syndrome of behaviors that "includes verbal statements of dysphoria, social isolation, somatic complaints, and a reduced rate of behavior" (Lewinsohn, Youngren, & Grosscup, 1979, pp. 291-292). According to his theory, depression is a function of positive reinforcement, which he defines as a person-environment interaction that serves to strengthen the target behavior (Lewinsohn, Youngren, & Grosscup, 1979).

The major assumptions underlying this approach to depression are: a low rate of response-contingent positive reinforcement elicits some depressive behaviors, such as dysphoria, fatigue, and other somatic symptoms; a low rate of response-contingent positive reinforcement is a sufficient explanation for other parts of the syndrome, such as the low rate of activity and verbal behavior. Due to the reduced rate of positive reinforcement, the individual is seen as being on an extinction schedule for the behaviors (Lewinsohn, Weinstein, & Shaw, 1969); the person's family reinforces the person's depressive behaviors through the expression of sympathy--at the same time, however, most other people find these same behaviors aversive and therefore, maintain the reduced level of positive reinforcement, further exacerbating the depression; depressed individuals are seen as having a deficit in social skills which leaves them less able to emit behaviors that elicit

positive reinforcement from others. This area will be discussed more extensively below.

Response-contingent positive reinforcement is seen as a function of three factors: the number of events which are potentially reinforcing for the individual, the number of available reinforcements in the environment, and the behavior of the individual (referring to the social skills deficit mentioned above; Lewinsohn, 1974a).

Reinforcement

Variables which have been posited as causal in other theories of depression are seen by Lewinsohn as secondary to low rates of response-contingent positive reinforcement. Cognitions such as low self-esteem and guilt, seen as causal by Beck (1967), are interpreted as consequences of reduced reinforcement by Lewinsohn. Similarly, the hostility dealt with in psychodynamic theories is seen as resulting from reduced reinforcement and also as part of the behavior which increases the social isolation of the depressed individual (Lewinsohn, 1974b).

There is theoretical literature other than Lewinsohn's which makes some similar proposals. Ferster (1973) proposed that in comparison with normals, depressed subjects would be characterized by lower levels of positive reinforcement and a higher incidence of avoidance and escape behaviors. Costello (1972) attributed the often mentioned loss of interest in depressives to a loss of reinforcer effectiveness.

There is also empirical literature relevant to the proposal that reinforcement is a critical variable in depression. In a study by Wener and Rehm (1975), subjects given a low frequency level of positive feedback on a paired associates task later reported more depressive affect, less confidence in their responses, and evidenced a higher response latency. Furthermore, those subjects who were depressed before beginning the task showed a greater sensitivity to reinforcement effects (more easily influenced) and more consistently underestimated the amount of positive feedback they were receiving.

Lewinsohn, Lobitz, and Wilson (1973), in a study comparing the reaction of depressed subjects, psychiatric controls, and normals to electrical shock, found that depressed subjects showed a sharper reaction to the shocks (more sensitivity) and less adaptation over successive trials. These results seem consistent with the observation made by Wener and Rehm (1975) that depressed subjects show greater sensitivity to reinforcement effects in that this study indicated that depressives are more sensitive to punishment effects.

Finally, Lewinsohn, Weinstein, and Alper (1970) found that increased positive reinforcement in groups situations led to decreased levels of depression.

Another series of studies which are based on Lewinsohn's theory used two questionnaires, the Pleasant Events Schedule and the Unpleasant Events Schedule, to identify sources of positive reinforcement and punishment for subjects. In one such study, MacPhillamy and Lewinsohn

(1974) found that depressed subjects reported lower levels of perceived potential positive reinforcement, lower levels of activity, and lower levels of pleasure experienced than normal subjects.

A case study discussed in Lewinsohn, Sullivan, and Grosscup (1979) showed that the subject in question demonstrated decreased depression in response to more frequent pleasant (positively reinforcing) events and less frequent unpleasant (aversive) events.

Two studies (Lewinsohn & Graf, 1973; Lewinsohn & Libet, 1972) used the Pleasant Events Schedule, the Depression Adjective Checklist, and cross-lagged panel analysis in an attempt to determine whether moods determine subsequent pleasant activity levels or vice-versa. Both studies were inconclusive, showing much stronger correlations for the same day than for spaced measurement in either direction. Lewinsohn and Graf (1973) go on to elaborate on their findings, indicating that those items on the schedule which were most strongly correlated with mood fall into three categories: social interactional activities, activities not consistent with depression (e.g., laughing), and activities implying competence and adequacy. A study done by Hammen and Glass (1975) considering the same issue found that increased pleasant activity levels did not decrease depression, and they concluded that mood affects activity levels, rather than the reverse. In a reply to this study, however, Lewinsohn (1975) criticized their manipulations and therefore questioned their conclusions.

In a closer examination of the manner in which self-monitoring

improves both mood and activity, Harmon, Nelson, and Hayes (1980) found that monitoring activity levels at 11 points throughout the day created more marked overall improvement in both mood and activity level than did monitoring mood. In their discussion, they generalized this result, suggesting that the process of self-monitoring of any kind cues the individual's awareness of the pertinent contingencies.

In a study by Zeiss, Lewinsohn, and Munoz (1979) comparing treatment with these activity schedules to interpersonal skills training and to cognitive therapy, it was concluded that all three have non-specific effects, unrelated to the targeted behaviors of the particular treatments.

Social Skills Deficits

Looking particularly at the fourth assumption of Lewinsohn's theory, that depressed individuals have a social skills deficit that leaves them poor elicitors of positive reinforcement (Lewinsohn & Shaffer, 1971), there are many other studies which are pertinent. As mentioned above, Lewinsohn and Graf (1973) found that social interactional activities were strongly correlated with mood in both depressed and normal subjects. Additionally, Zeiss, Lewinsohn, and Munoz (1979) found that interpersonal skills training was effective in reducing levels of depression in moderately to severely depressed volunteers.

In order to analyze more specifically the nature of the deficits

depressed individuals display, Libet and Lewinsohn (1973) analyzed how depressed subjects function in groups. By categorizing interactions into action, reaction, and new action, they examined total rate of emitted behaviors, interpersonal efficiency (ratio of emissions to receptions of behaviors), number of target individuals addressed, rate of positive reactions, and new action latency in depressives, psychiatric controls, and normals. Their results indicate that the depressed subjects emit fewer actions, are more restricted in the number of individuals addressed, emit fewer positive reactions, and have longer action latencies (thereby causing others to direct comments toward more responsive group members).

A study discussed by Lewinsohn (1974b) suggests that the social timing of depressed individuals is deviant. Subjects were asked to listen to a taped monologue and to press a button whenever they would say or do something in response to the speaker. Depressed subjects were found to be less predictable and less homogeneous in their responses than normals.

Youngren and Lewinsohn (1980) looked at the way depressed individuals function in groups and in dyads. They found that for depressed subjects, compared with psychiatric controls and normals, activity levels were lower, initiation frequency was lower, positive reinforcement from others was less frequent, and negative reinforcement was more frequent. It should be noted that these findings were non-significant trends. With regard to interpersonal style, self-ratings

and ratings by others for depressed subjects were more negative than those by and of the normals. Additionally, they found that depressed individuals reported less frequent social interactions and more discomfort with the interactions they did have.

In a study conducted by Hammen and Peters (1977), subjects read descriptions of male and female characters who were either depressed, anxious, or experiencing blunted affect. It was found that subjects rated depressed males as more severe, less able to function, and as being more likely to be rejected by others. In a follow-up study (Hammen & Peters, 1978), subjects were asked to interview students role-playing depressed or nondepressed individuals based on scripts provided. Students role-playing depressed individuals elicited greater rejection by their interviewers, who expressed little interest in further contact, as compared to nondepressed individuals. This effect was found to be much stronger in cross-sex dyads. The interviewers reported feeling more depressed themselves after interaction with the depressed role-players.

Similarly, Coyne (1976) had subjects spend 20 minutes on the telephone with depressed patients, nondepressed patients, and normals. After interaction with the depressives, subjects reported increased depression, anxiety, and hostility. The subjects were more rejecting of the depressives than of the other groups. Coyne concluded that the depressed patients induced negative affect in the subject through inappropriate self-disclosure and were rejected because of it.

Lewinsohn, Mischel, Chaplin, and Barton (1980) compared self-evaluations of depressed and nondepressed subjects with those made by observers following a group interaction. They found that while the depressed individuals rated themselves as less socially competent than the normals, their self-evaluations were more consistent with those made by the observers than were the self-evaluations made by the normals. The authors suggested that a part of depression may be a more realistic self-image than that had by most people. The depressogenic aspect of this realism on the part of the depressed individuals may be loss of an illusory "warm glow" (i.e., ego-enhancing bias) which characterized the nondepressed subjects.

Looking at language patterns as a specific type of social skill, analysis of the content of the interactions in Coyne's (1976) study showed that talk centered more on the depressed patients than it did on the other two groups. Coyne suggested that the aversive reactions of nondepressed subjects to the depressed patients may be due to inappropriate self-disclosure by the depressed individuals.

In a study by Petzel, Johnson, Johnson, and Kowalski (1981) it was found that depressed subjects speak less frequently in groups than normal subjects. Robinson and Lewinsohn (1973) comment that depressed individuals speak more slowly than normals. They furnish a case study in which a chronically depressed man was trained to speak more rapidly and as a result was ignored less frequently and drawn more closely into family dynamics.

Finally, Aronson and Weintraub (1967) did a study comparing depressed inpatients who improved to ones who did not. Asked to speak into a tape recorder for ten minutes, the tapes were compared with word counts from 23 normals asked to do the same thing. Taking the average word count of the normals as a standard, it was found that as depressed subjects improved, their word counts came increasingly closer to the word counts of the normals, the absolute differences between the two decreasing with improvement.

Deficits Associated with Depression

In most of the studies examining psychological deficits in depressives, depressed subjects functioned less adequately than did normal controls. Miller (1975), in a comprehensive review article, goes over a series of studies examining deficits exhibited by depressives in motor, perceptual, and cognitive functioning. He remarks, "... severe depression is often associated with marked degrees of impairment similar to that exhibited by schizophrenics. In fact, even mildly depressed subjects manifest severe performance deficits on some laboratory tasks" (p. 238). Cognitive deficits which have been linked to depression include general intellectual impairment (Payne, 1973), reduced intellectual speed (Furieux, 1956; Payne & Hewlett, 1960), and reduced memory and learning (Miller, 1974; Payne, 1973; Post, 1966). Seligman (e.g., Seligman, 1972) attributes a major role in depression to cognitive distortion on the part of the depressed individual, namely, the individual's perception of reinforcement as being

independent of his own actions. Wohlford (1966) indicates that depressed subjects have distorted time perception, a finding corroborated by Dilling and Rabin (1967). Miller (1975) concludes, "... there is a considerable amount of research which demonstrates that depressives exhibit deficit relative to normals and neurotics on intelligence tests and laboratory tasks and in communication" (p. 257).

There are studies, however, where no such deficits are found. For example, in a study by Flippo and Lewinsohn (1971) subjects showed no greater loss of self-esteem in response to failure than did nondepressed subjects. Similarly, there was no significant discrepancy between depressed and nondepressed subjects on the number of anagrams unscrambled in a study by Zarantonello, Johnson, and Petzel (1979), nor was a discrepancy found on an anagram task given by Gotlib and Asarnow (1979). Likewise, no difference in task performance was noted by Petzel et al. (1981) on individual completion of the NASA exercise, a task in which subjects were asked to rank order 15 items as to their importance for survival and travel on the moon.

Behavioral and Situational Contexts

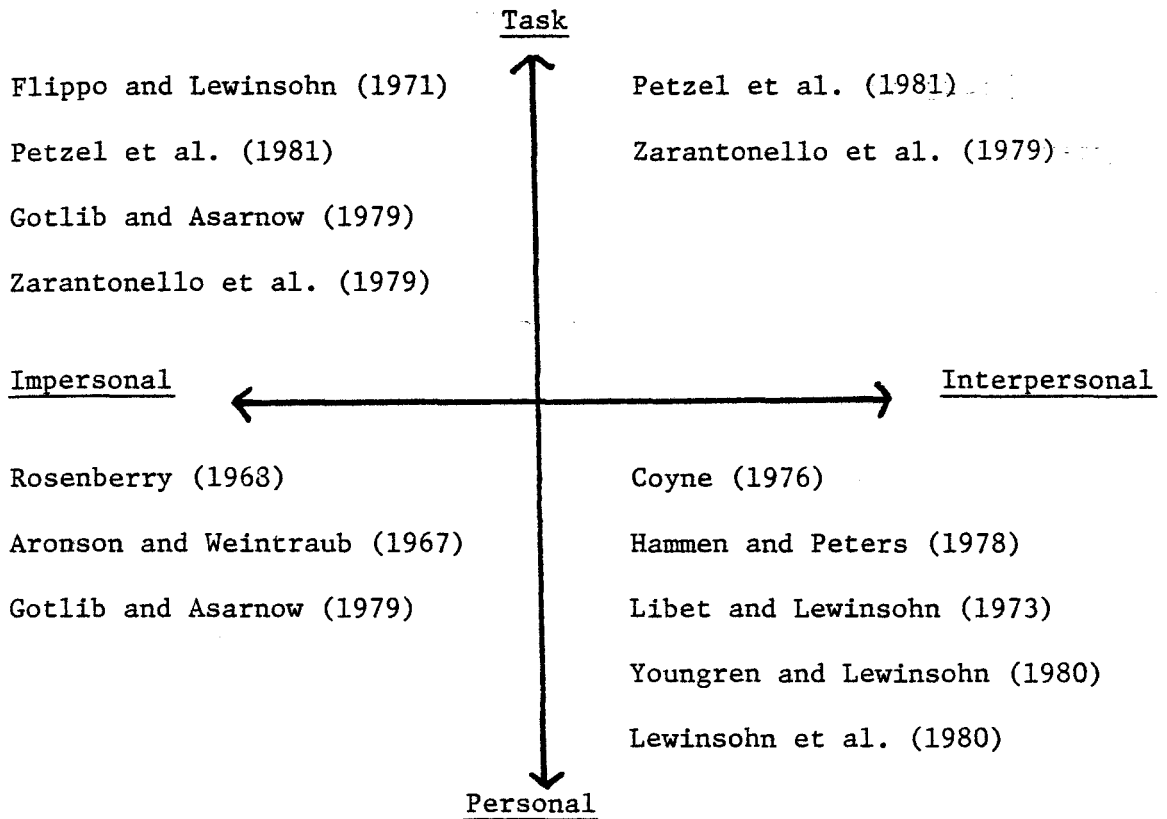
The types of behaviors being measured in all these studies can be seen as varying along the two dimensions of focus and context. Some of the activities or behaviors are personal in focus (i.e., having to do with the subjects as individuals), while others are task-oriented (i.e., having to do with objective things, external to the

subjects). Likewise, some of the research situations are interpersonal (i.e., groups or dyads), while others are impersonal, being completed individually. Many of the studies discussed here can be arranged along these dimensions in the manner diagrammed in Figure 1.

When examined in this manner, some intriguing patterns emerge. Experimental procedures which are task-oriented and completed in an impersonal setting include the NASA exercise (Petzel et al., 1981), anagrams (Gotlib & Asarnow, 1979; Zarantonello et al., 1979), and a puzzle-solving task (Flippo & Lewinsohn, 1971). In these studies, no significant differences in performance were found between the depressed and nondepressed subjects. An exception to this pattern is the work done by Seligman (e.g., Miller & Seligman, 1975), in which he finds depressed subjects functioning more poorly than nondepressed subjects on anagram tasks. It should be noted that the study by Gotlib and Asarnow (1979) uses Seligman's anagram tasks and finds no such deficit.

Personally focused tasks completed in an impersonal context include listening to taped speeches and signalling when some kind of verbal or behavioral intervention would be made (Rosenberry et al., 1968), being asked to talk for ten minutes into a tape recorder (Aronson & Weintraub, 1967), and completing a measure of interpersonal problem-solving ability (Gotlib & Asarnow, 1979). In these studies, the depressed subjects functioned less adequately and more erratically than nondepressed subjects.

FIGURE 1
Research in Depression Arranged Along the
Dimensions of Focus and Context



Personally focused tasks in an interpersonal context include 20 minute telephone conversations (Coyne, 1976), structured interviews (Hammen & Peters, 1978), and group and dyad interactions (Lewinsohn et al., 1980; Libet & Lewinsohn, 1973; Youngren & Lewinsohn, 1980). In these studies, the same performance deficits were noted as for personal tasks done individually. In addition, the depressed subjects were more disliked by the other subjects, were observer- and self-rated as less adequate, and were rejected more frequently than were the nondepressed subjects.

A particularly intriguing pattern is evidenced on impersonal tasks performed in an interpersonal setting. Examples of this category include coming to a group consensus for the NASA exercise (Petzel et al., 1981) and completing the anagrams in a situation where the subject's performance would be made known to others (Zarantonello et al., 1979). In these instances, while objective performance was not significantly poorer, the depressed subjects evaluated themselves more negatively, were more negatively evaluated by group members, and were less frequently positively reinforced by other group members.

Recently, the difference in functioning along these dimensions has been dealt with by a few authors. For example, Zarantonello et al. (1979) note that on "ego-involving" tasks, depressed individuals rated themselves more negatively than did nondepressed individuals. This difference was not found on "task-involving" conditions. Petzel

et al. (1981) found that on impersonal tasks done in groups there was a difference in the evaluations of group functioning made by members of the group when the groups were composed of all depressed, all non-depressed, and mixed populations. Likewise, although they found no difference between the task performance of depressed and nondepressed subjects, there were significant differences in the nature of interpersonal functioning. They suggest that the personal or task orientation of a group interaction may be an important situational determinant of the behavior of depressed individuals. In a study designed to address this distinction, Gotlib and Asarnow (1979) found no significant difference on anagram performance, but did find that depressed subjects performed significantly less well on the Means-End Problem-Solving procedure, an objective measure of interpersonal problem-solving ability. Challenging this study with respect to its assertions about the learned helplessness model, Rohsenow (1980) pointed out that depressed subjects exhibit deficits in interpersonal problem-solving, even if not on the anagrams. Gotlib and Asarnow (1980) responded by making the distinction between interpersonal and impersonal problem-solving. They remarked that the learned helplessness model predicts deficits in response initiation and learning, which are characterized by the anagram task, and pointed out that clinically depressed subjects show deficits in interpersonal problem-solving, not in impersonal problem-solving. They felt this observation calls the learned helplessness model into question.

STATEMENT OF PROBLEM AND HYPOTHESES

The present study sought to investigate more completely the nature of the deficits depressed subjects exhibit along the two dimensions of focus and context. In replication of Petzel et al. (1981), this study contrasted the functioning of depressed subjects with that of nondepressed subjects when engaged in task-oriented activities individually vs. interpersonally. Additionally, subjects were asked to do personally-oriented tasks individually and in a group situation. The study examined the differences in the functioning of depressed and nondepressed subjects in task-oriented vs. personally-oriented activities. It also examined the differences in functioning caused by an impersonal vs. interpersonal context.

The following is a presentation of the design and rationale used in this study, along with the hypotheses related to this rationale.

Task Focus

This condition emphasized the orientation that the researchers were interested in characteristics of the task, rather than of the subjects.

1. Impersonal Situation. No psychological deficit was expected to appear in the depressed subjects.

Hypothesis 1. There is no significant difference between the objective performance of depressed and nondepressed subjects on the impersonal task completed individually.

2. Interpersonal Situation. This situation required that subjects interact with other people in small groups. Petzel et al. (1981) found that nondepressed subjects were rated as more important contributors to a group product and spoke more frequently than depressed subjects in task focus groups. Coyne (1976) hypothesized that depressed subjects self-disclose more, which is aversive to others. The positive evaluations of the groups in the study by Petzel et al. (1981) suggest that such self-disclosure may not occur in task focus groups.

Hypothesis 2. In task focus groups, individual rankings made by nondepressed subjects are more positively correlated with rankings generated by their respective groups than are rankings by depressed subjects.

Hypothesis 3. Nondepressed subjects speak significantly more frequently than depressed subjects in task focus groups.

Hypothesis 4. Depressed and nondepressed subjects do not differ significantly in amount of self-disclosure in task focus groups.

Personal Focus

This condition emphasized the orientation that the researchers were interested in characteristics of people in general and of the subjects in particular.

1. Impersonal Situation. The psychological deficit associated with depression, not expected to occur in task focus conditions, was predicted to occur in personal focus conditions.

Hypothesis 5. Individual rankings made by depressed subjects are less similar to those of a standardization group than are those made by nondepressed subjects on the personal focus task.

2. Interpersonal Situation. Hammen and Peters (1978) and Coyne (1976) suggested that depressed subjects are aversive to others in this type of condition, perhaps because of their inappropriate self-disclosure. This aversiveness and inappropriate self-disclosure should make the groups function less efficiently and interfere with the contributions of the nondepressed subjects to the group effort.

Hypothesis 6. Correlations of individual to group rankings will not be significantly different for depressed and nondepressed subjects in the personal focus conditions.

Hypothesis 7. Depressed subjects speak significantly more frequently than nondepressed subjects in the personal focus groups.

Hypothesis 8. Depressed subjects are significantly more self-disclosing than nondepressed subjects in personal focus groups.

Task and Personal Focus Compared

1. Frequency of Speech. It was expected that the amount of speaking that depressed subjects engaged in would be more strongly affected by the type of situation than would the speaking of nondepressed subjects.

Hypothesis 9. Depressed subjects speak significantly more frequently in personal focus groups than in task focus groups.

Hypothesis 10. Nondepressed subjects do not differ significantly in frequency of speech in task and personal focus groups.

2. Self-disclosure. Coyne (1976) proposed that depressed persons are inappropriately self-disclosing. Petzel et al. (1981) suggested that their self-disclosure is situationally bound.

Hypothesis 11. Depressed subjects self-disclose more frequently in personal focus groups than in task focus groups.

Hypothesis 12. Nondepressed subjects do not differ significantly in amount of self-disclosure in the task and personal focus groups.

3. Leadership Selection. Petzel et al. (1981) found that nondepressed subjects spoke more frequently and were chosen as leaders more often than depressed subjects in task focus groups. However, it was expected that leadership selection

would be less closely related to frequency of speech in personal focus groups, since the speech of depressed subjects would be less appropriate in these groups.

Hypothesis 13. Nondepressed subjects are chosen as leaders more frequently than depressed subjects in both task and personal focus groups.

Hypothesis 14. Frequency of speech is significantly correlated with leadership selection in task focus groups.

Hypothesis 15. Frequency of speech is not significantly correlated with leadership selection in personal focus groups.

4. Likeability Nominations.

Hypothesis 16. There is a significant interaction between focus and depression level, such that there is no difference in number of likeability nominations between depressed and nondepressed subjects in task focus groups, but nondepressed subjects receive more likeability nominations than depressed subjects in personal focus groups.

Questionnaire

It was expected that personal focus groups would be rated more negatively than task focus groups because of the inappropriate behavior of depressed subjects in the personal focus conditions.

Hypothesis 17. Personal focus groups are seen as having more trouble getting organized than task focus groups.

Hypothesis 18. Personal focus groups are seen as being more frequently sidetracked than task focus groups.

Hypothesis 19. Personal focus groups are seen as working less well together than task focus groups.

Hypothesis 20. Personal focus group members report being less satisfied with the strategy used than the members of task focus groups.

Hypothesis 21. There is an interaction between depression level and group focus with reference to how enjoyable the group was, such that depressed subjects enjoy the personal focus groups more than the task focus groups, while nondepressed subjects enjoy the task focus groups more than the personal focus groups.

METHOD

Subjects

Subjects were drawn from the students enrolled in one of the Introductory Psychology classes at Loyola University of Chicago. All students completed the Beck Depression Inventory as part of a large screening battery administered. Students with scores of 10 or above on the BDI were designated depressed, while those with scores of 4 or below were designated nondepressed. These students formed a pool from which the subjects for this study were taken. The students were contacted by telephone by the investigator and were asked to participate in the study. The subjects were formed into six groups, each group composed of two depressed females, two depressed males, two nondepressed females, and two nondepressed males. As the group exercises were conducted one and a half weeks after screening, each subject completed the Depression Adjective Check List before participating in the exercise. Data was then discarded for those subjects designated high depressed whose DACL scores fell in the lowest quartile of scores and those subjects designated low depressed whose DACL scores fell in the highest quartile of scores. Data was retained for 37 subjects. A complete breakdown of the subjects by condition is presented in Table 1.

Materials

The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, &

TABLE 1
Number of Subjects in Each Cell

	Nondepressed	Depressed
Personal Focus		
Males	5	5
Females	5	4
Task Focus		
Males	5	3
Females	5	5

Erbaugh, 1961) is a widely used 21 item questionnaire which yields a score for what is now believed to be state depression (Bumberry, Oliver, & McClure, 1978). Each of the 21 items is designed to tap a specific behavioral, motivational, vegetative, or cognitive manifestation of depression and consists of a graded series of four statements. The statements range from a position of no depression (scored zero) to one of maximum severity of depression (scored three), yielding a range in possible scores from zero to 63.

The Depression Adjective Checklist (Lubin, 1965; Lubin, 1966) is a state measure of depression which has several equivalent forms. It furnishes a short list of adjectives, many of which reflect a negative mood state and the remainder of which reflect a positive mood state. The subject is asked to check all adjectives which he sees that describe how he feels on that particular day. Scoring consists of giving one point for every negative adjective checked and one for each positive adjective not checked, yielding an overall rating of depression level.

The NASA exercise (Pfeiffer & Jones, 1969) is a training exercise designed to compare individual decision-making with that of groups. Subjects are presented with a list of 15 items (e.g., oxygen, matches, rope) and are asked to rank order them according to their importance for survival and travel on the moon. Following individual rankings, a group consensus is reached. The ranks are then compared with those made by NASA, and the discrepancy between the two for each item is summed to

yield an overall total score.

The exercise used in the personal focus condition consists of a list of 15 personality qualities. The list was generated by asking an undergraduate psychology class to list qualities which they felt were important for leading a well-rounded, well-adjusted life. From these suggestions, 15 qualities were chosen which were listed frequently, were unambiguous, and which were distinct from each other. A second group of undergraduates was then asked to rank order these 15 items according to how important they are for leading a well-rounded, well-adjusted life, in order to establish standardization data. Subjects in this study were asked to rank order the 15 qualities in the same way. Their individual scores were then obtained by computing differences between individual ratings and those generated by the standardization group. A copy of the exercise is included in the Appendix.

The group process questionnaire was an adapted version of one used by Petzel et al. (1981). It asked subjects to make a mark along a continuous dimension as an estimate of the following factors: problems getting organized (no problems to many problems), how enjoyable the group was (extremely enjoyable to extremely unenjoyable), how frequently the group got sidetracked on irrelevant issues (often to never), to what extent the subject liked the other group members (extremely liked to extremely disliked), satisfaction with the group product (extremely satisfied to extremely dissatisfied), how willing the group

members were to share information (extremely willing to extremely unwilling), whether there was enough knowledge among group members to come up with a competent solution (definitely enough to definitely not enough), how well the group worked together (extremely well to extremely poor), satisfaction with the group's problem-solving strategy (extremely satisfied to extremely dissatisfied), how good the group leader or leaders were (extremely good to extremely poor). Each line denoting a continuum was of equal length, and the distance in millimeters from the left anchor point to the mark made by the subject was the score on that item. Each of these items was analyzed individually, and therefore, no total score was obtained. Finally, the subjects were asked to designate the leader or leaders of their groups and also the person or persons they found most likeable. They are also asked to rank order the group members on how important their contributions were to the group product.

Procedure

Three of the groups were assigned randomly to the task-oriented condition. These students, on arrival, were seated at one of eight desks, arranged in an inward-facing circle to eliminate any bias in leadership selection due to seating arrangement (Howells & Becker, 1962). Each desk had a card on it, bearing a letter (A through H), easily visible to the other group members. Once seated, the experimenter introduced the research as being designed to examine individual and group problem-solving ability, as well as the ensuing attitudes and

evaluations which arise from these activities. The students were asked to sign a consent form for videotaping and then completed a Depression Adjective Checklist, in order to assess current level of depression. They were then given ten minutes to complete the NASA exercise without consulting any group members. Following this, the students were given 15 minutes to reach a group consensus on the rankings of the 15 items. The ensuing discussion was videotaped. When a consensus had been reached, the students were asked to complete the group process questionnaire, designating leader(s) and most likeable member(s) by letter, and were then debriefed.

The remaining three groups were assigned to the personal focus condition. On their arrival, they were seated in eight desks, arranged in a circle, bearing a card on which they were asked to print their names. They were told that the purpose of the study was to investigate individual and group valuing processes. They were asked to sign the taping consent form and to complete the Depression Adjective Checklist.

They were then given ten minutes to complete the rankings individually, followed by 15 minutes in which they were asked to come to group consensus on the rankings. Following this interaction, which was videotaped, the students were asked to complete the group process questionnaire, designating leader(s) and likeable member(s) by name, and were then debriefed.

Later, the videotapes were viewed by an observer blind to depression levels, who was asked to count verbalizations made by each subject during the group interactions. A total count of verbalizations was obtained for each subject.

Additionally, two viewers, each blind to depression levels, were asked to watch the group interactions and to rate each subject on how self-disclosing he was (from zero, not self-disclosing at all, to five, extremely self-disclosing). The two ratings were to be averaged to obtain a self-disclosure score for each group member.

RESULTS

Examination of depression levels at the time of data collection revealed that there was a significant difference in DACL scores between the high ($\underline{M} = 10.10$, $SD = 4.81$) and low ($\underline{M} = 5.60$, $SD = 2.26$) depressed subjects $\underline{F}(1,29) = 15.27$, $p < .01$, suggesting that the depression manipulation was effective.

Exercise Performance

There was no significant difference in the objective performance of depressed ($\underline{M} = 44.80$, $SD = 7.91$) and nondepressed ($\underline{M} = 52.51$, $SD = 10.02$) subjects on the individual completion of the NASA exercise, $\underline{F}(1,14) = 1.99$, $p = N.S.$ This result is consistent with the one predicted by Hypothesis 1, that there is no significant difference in objective performance between depressed and nondepressed subjects on the NASA exercise.

Similarly, there was no significant difference in the performance of high ($\underline{M} = 47.76$, $SD = 11.82$) and low ($\underline{M} = 48.61$, $SD = 6.58$) depressed subjects in the individual completion of the personal focus task, $\underline{F}(1,15) = 1.57$, $p = N.S.$ This result is inconsistent with the one predicted by Hypothesis 5, that rankings made by depressed subjects would be less similar to a standardization group than those made by nondepressed subjects.

Product Influence, Importance of Contributions, and Leadership

Subjects' individual ratings of each item on the NASA exercise were correlated with the ratings for the items generated by their groups. The resulting correlation coefficients were then used as an index of the subject's influence over the group decision-making. The r scores were then converted to Fisher Z scores and a 2×2 ANOVA was computed on the variable across depression level and sex. No significant differences were found in influence across either variable. Particularly, there was no difference between high ($M = .85$, $SD = .34$) and low ($M = .77$, $SD = .21$) depressed subjects in influence, $F(1,14) = 1$, $p = N.S.$ This result is not consistent with Hypothesis 2, that rankings made by nondepressed subjects are more positively correlated with the group rankings than are rankings made by depressed subjects. The mean r scores for both these groups are significant at the .05 level, suggesting positive relationships between individual and group performance.

The same procedure was done for the correlation coefficients of individual to group rankings on the personality qualities task. Again there were no significant differences between high ($M = .69$, $SD = .36$) and low ($M = .62$, $SD = .26$) depressed subjects in group influence, $F(1,15) = 1$, $p = N.S.$ The results were therefore consistent with those predicted by Hypothesis 6, that there is no difference in group influence between depressed and nondepressed subjects in the personal focus groups, as measured by the correlation between individual and

group ratings.

A 2 x 2 x 2 ANOVA on the number of leadership nominations received across depression level, sex, and group focus yielded no significant difference for any of the variables (depressed, task groups - $\bar{M} = .88$, $SD = 1.73$; nondepressed, task groups - $\bar{M} = 2.12$, $SD = 2.56$; depressed, personal groups - $\bar{M} = 1.56$, $SD = 1.89$; nondepressed, personal groups - $\bar{M} = 2.11$, $SD = 2.28$). These results are inconsistent with Hypothesis 13, that nondepressed subjects are chosen as leaders more often in both task and personal focus groups.

The rankings of importance of contributions of each subject were tabulated in five ways: mean rank assigned by all group members, mean rank assigned by depressed group members, mean rank assigned by nondepressed group members, mean rank assigned by male group members, and mean rank assigned by female group members. Each subject therefore was given five scores, reflecting each of the different tabulations. While no significant effects involving depression levels were observed, a consistent pattern of sex by focus interaction was observed, such that females were seen as more important contributors to the personal focus groups and males as more important to the task groups. These results were significant for ratings made by nondepressed subjects, $F(1,29) = 4.58$, $p < .05$, and by female subjects, $F(1,29) = 6.70$, $p < .05$. Means and standard deviations for these effects can be found in Tables 2 and 3, respectively. Further, while not reaching significance ($\alpha = .05$),

Mean Rankings Made by Nondepressed Subjects of the Relative
Importance of the Contributions of Group Members
(low scores reflecting high ranks in importance)

	<u>ratings of males</u>	<u>ratings of females</u>
<u>task groups</u>	$\bar{M} = 3.16$ $\bar{S.D.} = 1.96$	$\bar{M} = 4.78$ $\bar{S.D.} = 1.52$
<u>personal groups</u>	$\bar{M} = 4.90$ $\bar{S.D.} = 2.15$	$\bar{M} = 3.69$ $\bar{S.D.} = 1.66$

TABLE 3

Mean Rankings Made by Females of the Relative Importance
 of Contributions of Group Members
 (low scores reflecting high ranks in importance)

	<u>ratings of males</u>	<u>ratings of females</u>
<u>task groups</u>	$\bar{M} = 3.48$ $S.D. = 1.91$	$\bar{M} = 4.49$ $S.D. = 1.43$
<u>personal groups</u>	$\bar{M} = 3.48$ $S.D. = 2.13$	$\bar{M} = 3.18$ $S.D. = 1.27$

rankings made by males, $F(1,29) = 3.03$, $p = .092$, depressed subjects, $F(1,29) = 3.06$, $p = .091$, and all subjects, $F(1,29) = 4.07$, $p = .053$, were trends falling in the same configuration.

Speech Frequency

Each videotape was viewed by an observer, who counted the number of times each subject spoke during the group interaction. Each verbalization was given a count of one, regardless of the length of the contribution. Speech frequency was operationalized as the total number of verbalizations made during the 15 minute exercise. A $2 \times 2 \times 2$ ANOVA was then computed across sex, depression level, and group focus. This analysis yielded no significant effects for depression level, either alone or in interaction with one of the other variables. These results are inconsistent with Hypotheses 3 (nondepressed subjects speak more frequently than depressed subjects in task focus groups), 7 (depressed subjects speak more frequently than nondepressed subjects in personal focus groups), and 9 (depressed subjects speak more frequently in personal focus groups than in task focus groups). They are consistent with Hypothesis 10 (nondepressed subjects do not differ in frequency of speech between task and personal focus groups). There was, however, a nonsignificant trend, $F(1,29) = 3.99$, $p = .055$, toward a sex by focus interaction, such that females, $M = 36.7$, $SD = 19.7$, spoke more frequently than males, $M = 22.8$, $SD = 19.9$, in the personal focus groups, while males, $M = 30.9$, $SD = 19.5$, spoke more frequently than females, $M = 18.5$, $SD = 16.0$, in the task focus groups.



Further, speech frequency was significantly correlated with leadership nominations ($r = .87$) in the task focus groups, $t(16) = 7.15$, $p < .001$, a result consistent with Hypothesis 14, that frequency of talk is significantly correlated with leadership selection in task focus groups. Likewise, speech frequency was significantly correlated with leadership nominations in the personal focus groups ($r = .53$), $t(17) = 2.59$, $p < .001$, a result inconsistent with Hypothesis 15, that speech frequency is not significantly correlated with leadership nominations in the personal focus groups.

Likeability

A 2 x 2 ANOVA on number of likeability nominations was done across sex, depression level, and group focus. No significant results were found for any of these variables (depressed, task focus - $M = .75$, $SD = 1.04$; nondepressed task groups - $M = 1.20$, $SD = 1.14$); depressed, personal focus - $M = 1.11$, $SD = 1.27$); nondepressed, personal focus - $M = 1.19$, $SD = 1.40$). These results are inconsistent with Hypothesis 16, which predicted a depression by focus interaction.

Self-Disclosure

Observers were asked to view the videotaped interactions and to rate the subjects on how self-disclosing they were on a scale from 1 (not at all) to 5 (extremely). The observers were further asked to indicate whether this self-disclosure was appropriate or inappropriate. This analysis was discontinued when the observers indicated that self-

disclosure was too infrequent to differentiate the subjects. Therefore, Hypotheses 4, 8, 11, and 12, all having to do with self-disclosure, were not tested.

Questionnaire

Each continuum on the questionnaire was measured, and the number of millimeters from the left anchor point to the mark made by the subject was recorded. A 2 x 2 x 2 ANOVA was then done for each question asked across depression level, sex, and group focus. No significant effects were found on any of the questions, with the exception of Question #7, which asked, "Did you feel there was enough knowledge among the group members to come up with a competent solution to the problem?" A significant main effect was found for group focus, such that subjects agreed they had sufficient knowledge in the personal focus groups more strongly than in the task focus groups, $F(1,29) = 4.43, p < .05$). Therefore, the results predicted in Hypotheses 17 (personal focus groups are seen as having more trouble getting organized than task focus groups), 18 (personal focus groups are seen as being more frequently sidetracked than task focus groups), 19 (personal focus groups are seen as working less well together than task focus groups), 20 (personal focus group members report being less satisfied with the strategy used than members of the task focus groups), and 21 (there is an interaction between depression level and group focus such that depressed subjects enjoy the personal focus groups more than the task focus groups, while nondepressed subjects enjoy the task focus groups more than the personal focus groups) were not observed. Means

and standard deviations for each of the ten questions are presented in Table 4.

TABLE 4

Means and Standard Deviations for Questions One through Ten
on the Group Process Questionnaire

Q#	affirmative reply high vs. low	Task Groups		Personal Groups	
		High Dep.	Low Dep.	High Dep.	Low Dep.
1	H	$\underline{M}=25.63$ $\underline{SD}=18.65$	$\underline{M}=20.90$ $\underline{SD}=20.57$	$\underline{M}=39.78$ $\underline{SD}=29.28$	$\underline{M}=29.00$ $\underline{SD}=17.63$
2	L	$\underline{M}=44.38$ $\underline{SD}=26.20$	$\underline{M}=33.80$ $\underline{SD}=12.58$	$\underline{M}=41.67$ $\underline{SD}=36.49$	$\underline{M}=33.60$ $\underline{SD}=29.87$
3	L	$\underline{M}=109.75$ $\underline{SD}=18.35$	$\underline{M}=100.90$ $\underline{SD}=30.58$	$\underline{M}=98.33$ $\underline{SD}=30.24$	$\underline{M}=109.40$ $\underline{SD}=19.15$
4	L	$\underline{M}=38.13$ $\underline{SD}=25.06$	$\underline{M}=32.50$ $\underline{SD}=13.62$	$\underline{M}=21.78$ $\underline{SD}=27.91$	$\underline{M}=31.70$ $\underline{SD}=31.93$
5	L	$\underline{M}=33.25$ $\underline{SD}=36.18$	$\underline{M}=25.90$ $\underline{SD}=19.85$	$\underline{M}=37.50$ $\underline{SD}=34.54$	$\underline{M}=34.20$ $\underline{SD}=21.32$
6	L	$\underline{M}=17.25$ $\underline{SD}=19.78$	$\underline{M}=24.00$ $\underline{SD}=23.45$	$\underline{M}=18.56$ $\underline{SD}=18.02$	$\underline{M}=25.40$ $\underline{SD}=13.72$
7	L	$\underline{M}=61.13$ $\underline{SD}=43.84$	$\underline{M}=54.10$ $\underline{SD}=24.16$	$\underline{M}=31.22$ $\underline{SD}=29.87$	$\underline{M}=38.00$ $\underline{SD}=27.74$
8	L	$\underline{M}=27.75$ $\underline{SD}=29.38$	$\underline{M}=26.90$ $\underline{SD}=14.30$	$\underline{M}=31.33$ $\underline{SD}=27.36$	$\underline{M}=21.80$ $\underline{SD}=16.64$
9	H	$\underline{M}=84.38$ $\underline{SD}=43.72$	$\underline{M}=93.20$ $\underline{SD}=31.58$	$\underline{M}=78.56$ $\underline{SD}=34.92$	$\underline{M}=77.30$ $\underline{SD}=41.15$
10	L	$\underline{M}=37.00$ $\underline{SD}=27.68$	$\underline{M}=33.00$ $\underline{SD}=19.77$	$\underline{M}=40.50$ $\underline{SD}=23.43$	$\underline{M}=38.90$ $\underline{SD}=23.85$

DISCUSSION

The results of this study failed to yield any evidence of depression effects. Effects that were hypothesized, in general, were not observed, and those hypotheses which were confirmed tended to be ones which predicted no differences, a conclusion one is unable to make statistically as this would entail accepting the null hypothesis.

Although the results do replicate the finding of Petzel et al. (1981) that there is no objective difference in task performance between high and low depressed subjects on non-personally involving tasks, the difference in performance on personally-involving tasks that they suggest should be found was not observed. A possible explanation for this lack of effect is that the personality quality rankings was ~~not successful~~ as a personally-involving group activity. Coyne (1976) indicates that personal activities elicit inappropriate self-disclosure on the part of depressed individuals. The total lack of self-disclosure in the group interchanges supports the possibility that the choice of tasks was not a good one. If this is true, then the two types of groups were both task-oriented, and it would be expected that there would be no difference in objective performance on either exercise. Certainly this issue is not unequivocal as group focus does figure in two significant interactions and one significant main effect. It is possible that the tasks differ along some pertinent dimension (e.g., content), but not along amount of personal involvement elicited by the task.

The objective task performance of the subjects is just a part of this study, however. These results also fail to replicate some of the findings for the interpersonal variables discussed by Petzel et al. (1981), Lewinsohn (Lewinsohn, Youngren, & Grosscup, 1979), Coyne (1976), and others. For example, in this study depressed subjects did not speak more or less frequently than did nondepressed subjects. Unlike the study by Petzel et al. (1981), there were no effects found for depression on leadership choice or on rated importance of contribution in the task-oriented groups. Additionally, none of the effects of depression which were hypothesized for the personal focus groups, based on the work of Coyne (1976), Hammen and Peters (1978), and Hammen and Glass (1975), were observed. The only predicted relationship which was significant was the fact that speech frequency was related to leadership nomination. One is left with the possibility that the results found by Petzel et al. (1981) were artifactual and, therefore, were not observed under replication. However, their results were not inconsistent with those found by other investigators (e.g., Gotlib & Asarnow, 1979; Youngren & Lewinsohn, 1980). Additionally, one would then also have to consider that Coyne (1976), Hammen and Peters (1978), and others who have demonstrated social functioning deficits in depressed individuals were also mistaken. It seems more likely that the depression manipulation here, although statistically significant, was not clinically significant. The original criterion which had been planned was to select only subjects who scored 12 or higher on the BDI

pre-screening. Due to the insufficient number of people available, this criterion had to be dropped to 10 or above. The low depressed subjects therefore had a mean DACL score of 5.6, the high depressed subjects of 10.1. The difference in these values is not as great as in other studies. The mean DACL scores of low depressed subjects in the study by Petzel et al. (1981) was 8.37, while the mean for high depressed subjects was 12.77. While the difference in these scores is similar to the present study, the high depressed subjects' scores were higher than those obtained in the present study, a difference which may be clinically important. The lack of depression effects found in this study might therefore be attributable to a lack of real clinical difference between the high and low depressed subjects.

An additional factor which should be considered is the use of videotaping during the group exercises. Petzel et al. (1981) used an observer present during the group interactions to count speech frequency. The presence of videotape equipment in the room, which did seem to engender much nervous laughter on the part of the subjects, may have prevented the subjects from participating in a completely natural manner during the exercises. This effect seems particularly indicated with reference to the almost complete lack of self-disclosure made by group participants. The use of the equipment may therefore also have prevented the observation of the expected effects.

Turning to those differences which were significant, the results, although not predicted, are not really surprising. All subjects in

the personal focus groups agreed more strongly that they had sufficient knowledge to generate competent solutions to the exercise than did subjects in the task focus groups. When one considers that the personal focus task involved discussing facets of the life of a college student, while the task focus exercise involved discussing facets of survival and travel on the moon, this effect seems easily comprehensible.

A consistent sex by focus interaction was also observed, such that males were seen as being more important contributors to the task focus groups, the females to the personal focus groups, regardless of depression level. This pattern of ratings was made by males, females, high depressed subjects, and low depressed subjects alike. This pattern is also supported by a nonsignificant trend that suggests that females spoke more frequently in personal focus groups, males in task groups. Additionally, another nonsignificant trend suggests that females were chosen as leaders more frequently in personal focus groups, males in task focus groups. Obviously, these two trends are related, due to the fact that in both types of groups speech frequency was significantly correlated with leadership choice. Taken collectively, there is strong indication that females were seen as more active, important participants in the personal focus groups, while males were seen as playing a more significant role in task focus groups.

One of the more commonly known and frequently discussed sex-role stereotypes has been the image of the male as the math/science-oriented,

unemotional breadwinner and of the female as being more socially aware and less accomplished at "hard science" subjects (Maccoby & Jacklin, 1974; Spence & Helmreich, 1978; Weitz, 1977). The results observed here are consistent with this pattern. Although there was no objective difference in task performance or in participation, males and females were seen as playing different roles and as differing in their effectiveness, depending on the focus of the group interactions.

In summary, this study failed to make many of the points intended. The only portion of Petzel et al. (1981) which was replicated was the equivalent individual performance of depressed and nondepressed subjects on the NASA exercise. Unlike Petzel et al. (1981), there was no effect found for depression on ratings of contribution importance, speech frequency, or leadership nomination. The suggestion that depressed subjects' differential performance may be situationally bound (Petzel et al. 1981; Zarantonello et al., 1979) was not supported here. Likewise, the social functioning deficits discussed by Lewinsohn and others were not supported by this study. However, the study did support the hypothesis that depressed individuals' objective task performance on non-personally involving tasks is not impaired in comparison with that of non-depressed individuals. Additionally, it furnished support for some of the traditional sex role differentiations, namely that men are better at task/achievement-oriented activities and women at social/interpersonal ones.

SUGGESTIONS FOR FUTURE RESEARCH

It would be premature to conclude that there are no differences such as the ones posited by Petzel et al. (1981) in the functioning of depressed individuals depending on the focus of the activity. The differences in the functioning of depressed subjects on tasks which vary along the dimensions of focus and context warrant more investigation. In the future, more care should be taken to ensure that the high and low depressed subjects differ clinically as well as statistically. Also, more thought should be given to the task chosen for the personal focus condition, in an attempt to find one which may be more personally engaging than the one used here. Thirdly, more specific, possibly more sensitive, dependent variables are needed, particularly for gauging the social deficits posited. A thorough content analysis of group interactions is indicated. Finally, it may be that the group size was larger than optimal for eliciting pertinent depressive behaviors. It may be that groups of two, three, or four would be a more effective size.

The general design of this study is flexible enough to implement all of these variations. With work and systematic variation, a more compelling combination of tasks, manipulations, and measures may be found.

REFERENCES

- Aronson, H. & Weintraub, W. Verbal productivity as a measure of change in affective status. Psychological Reports, 1967, 20, 483-487.
- Beck, A. T. Depression: clinical, experimental and theoretical aspects. New York: Harper and Row, 1967.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. An inventory for measuring depression. Archives of General Psychiatry, 1961, 4, 53-63.
- Bumberry, W., Oliver, J. M., & McClure, J. N. Validation of the Beck Depression Inventory in a university population using psychiatric estimates as a criterion. Journal of Consulting and Clinical Psychology, 1978, 46, pp. 150-155.
- Costello, C. G. Depression: loss of reinforcers or loss of reinforcer effectiveness? Behavior Therapy, 1972, 3, 240-247.
- Coyne, J. C. Depression and the response of others. Journal of Abnormal Psychology, 1976, 85, 186-193.
- Dilling, C. A., & Rabin, A. I. Temporal experience in depressive states and schizophrenia. Journal of Consulting Psychology, 1967, 31, 604-608.
- Ferster, C. B. A functional analysis of depression. American Psychologist, 1973, 28, 857-870.

- Flipppo, J. R., & Lewinsohn, P. M. Effects of failure on the self-esteem of depressed and nondepressed subjects. Journal of Consulting and Clinical Psychology, 1971, 36, 151.
- Furneaux, W. D. The Nufferino manual of speed tests. London: Institute of Psychiatry, 1956.
- Gotlib, I. H., & Asarnow, R. F. Interpersonal and impersonal problem-solving skills in mildly and clinically depressed students. Journal of Consulting and Clinical Psychology, 1979, 47, 86-95.
- Gotlib, I. H., & Asarnow, R. F. Independence of interpersonal and impersonal problem-solving skills: Reply to Rohsenow. Journal of Consulting and Clinical Psychology, 1980, 48, 286-288.
- Hammen, C. L., & Glass, D. R., Jr. Depression, activity, and evaluation of reinforcement. Journal of Abnormal Psychology, 1975, 84, 718-721.
- Hammen, C. L., & Peters, S. F. Differential response to male and female depressive reactions. Journal of Consulting and Clinical Psychology, 1977, 45, 994-1001.
- Hammen, C. L., & Peters, S. F. Interpersonal consequences of depression: response to men and women enacting a depressed role. Journal of Abnormal Psychology, 1978, 87, 322-332.
- Harmon, T. M., Nelson, R. O., & Hayes, S. C. Self-monitoring of moods vs. activity by depressed clients. Journal of Consulting and Clinical Psychology, 1980, 48, 30-38.

- Howells, L. T., & Becker, S. W. Seating arrangements and leadership emergence. Journal of Abnormal and Social Psychology, 1962, 64, 148-150.
- Lewinsohn, P. M. A behavioral approach to depression. In R. J. Friedman and M. M. Katz (Eds.), The psychology of depression: Contemporary theory and research. Washington, D. C.: V. H. Winston and Sons, 1974a.
- Lewinsohn, P. M. Clinical and theoretical aspects of depression. In K. S. Calhoun, H. E. Adams, and K. M. Mitchell (Eds.), Innovative treatment methods in psychopathology. New York: John Wiley and Sons, 1974b.
- Lewinsohn, P. M. Engagement in pleasant activities and depression levels. Journal of Abnormal Psychology, 1975, 84, 729-731.
- Lewinsohn, P. M., & Graf, M. Pleasant activities and depression. Journal of Consulting and Clinical Psychology, 1973, 41, 261-268.
- Lewinsohn, P. M., & Libet, J. Pleasant events, activity schedules, and depression. Journal of Abnormal Psychology, 1972, 79, 291-295.
- Lewinsohn, P. M., Lobitz, W. C., & Wilson, S. "Sensitivity" of depressed individuals to aversive stimuli. Journal of Abnormal Psychology, 1973, 81, 259-263.
- Lewinsohn, P. M., Mischel, W., Chaplin, W., & Barton, R. Social competence and depression: The role of illusory self-perceptions. Journal of Abnormal Psychology, 1980, 89, 203-212.

- Lewinsohn, P. M., & Shaffer, M. Use of home observation as an integral part of the treatment of depression: Preliminary report and case studies. Journal of Consulting and Clinical Psychology, 1971, 37, 87-94.
- Lewinsohn, P. M., Sullivan, J. M., & Grosscup, S. J. Changing reinforcing events: An approach to the treatment of depression. Unpublished manuscript, University of Oregon, 1979.
- Lewinsohn, P. M., Weinstein, M. S., & Alper, T. A behavioral approach to the group treatment of depressed persons: A methodological contribution. Journal of Clinical Psychology, 1970, 26, 525-532.
- Lewinsohn, P. M., Weinstein, M. S., & Shaw, D. A. Depression: A clinical-research approach. In R. D. Rubin & C. M. Franks (Eds.), Advances in behavior therapy, 1968. New York: Academic Press, 1969.
- Lewinsohn, P. M., Youngren, M. A., & Grosscup, S. J. Reinforcement and depression. In R. A. Depue, The psychology of the depressive disorders: Implications for effects of stress. New York: Academic Press, 1979.
- Libet, J. M., & Lewinsohn, P. M. Concept of social skills, with special reference to the behavior of depressed persons. Journal of Consulting and Clinical Psychology, 1973, 40, 304-312.
- Lubin, B. Adjective checklists for measurement of depression. Archives of General Psychiatry, 1965, 12, 57-63.

- Lubin, B. Fourteen brief depression adjective checklists. Archives of General Psychiatry, 1966, 15, 205-208.
- Maccoby, E. E., & Jacklin, C. G. The psychology of sex differences. Stanford, CA.: Stanford University Press, 1974.
- MacPhillamy, D. J., & Lewinsohn, P. M. Depression as a function of levels of desired and obtained pleasure. Journal of Abnormal Psychology, 1974, 83, 651-657.
- Miller, W. R. Learned helplessness in depressed and nondepressed students. (Doctoral Dissertation, University of Pennsylvania, 1974.) Dissertation Abstracts International, 1974, 35, 1921B.
- Miller, W. R. Psychological deficits in depression. Psychological Bulletin, 1975, 82, 238-260.
- Miller, W. R., & Seligman, M. E. P. Depression and the perception of reinforcement. Journal of Abnormal Psychology, 1973, 82, 62-73.
- Payne, R. W. Cognitive abnormalities. In H. J. Eysenck (Ed.), Handbook of abnormal psychology (2nd Ed.); San Diego: Knapp, 1973.
- Payne, R. W., & Hewlett, J. H. G. Thought disorder in psychotic patients. In H. J. Eysenck (Ed.), Experiments in personality, (Vol. 2). London: Routledge & Kegan Paul, 1960.
- Petzel, T. P., Johnson, J. E., Johnson, H. H., & Kowalski, J. Behavior of depressed subjects in problem-solving groups. Journal of Research in Personality, 1981, 15, 389-398.

- Pfeiffer, J. W., & Jones, J. E. A handbook of structured experiences for human relations training: Volume 1. Iowa City, Iowa: University Associates Press, 1969.
- Post, F. Somatic and psychic factors in the treatment of elderly psychotic patients. Journal of Psychosomatic Research, 1966, 10, 13-19.
- Robinson, J. C., & Lewinsohn, P. M. Behavior modification of speech characteristics in a chronically depressed man. Behavior Therapy, 1973, 4, 150-152.
- Rohsenow, D. J. Comment on Gotlib and Asainow's learned helplessness study. Journal of Consulting and Clinical Psychology, 1980, 48, 284-285.
- Rosenberry, C., Weiss, R. L., & Lewinsohn, P. M. Frequency and skill of emitted social reinforcement in depressed and nondepressed subjects. Unpublished Manuscript, University of Oregon, 1968.
- Seligman, M. E. P. Learned helplessness. Annual Review of Medicine, 1972, 23, 407-412.
- Spence, J. T., & Helmreich, R. L. Masculinity and femininity: Their psychological dimensions, correlates, and antecedents. Austin, TX: University of Texas Press, 1978.
- Weitz, S. Sex roles, biological, psychological, and social foundations. New York: Oxford University Press, 1977.
- Wener, A. E., & Rehm, L. P. Depressive affect: A test of behavioral hypotheses. Journal of Abnormal Psychology, 1975, 84, 221-227.

- Wohlford, P. Extension of personal time, affective states, and expectations of personal death. Journal of Personality and Social Psychology, 1966, 3, 559-566.
- Youngren, M. A., & Lewinsohn, P. M. The functional relation between depression and problematic interpersonal behavior. Journal of Abnormal Psychology, 1980, 89, 333-341.
- Zarantonello, M. M., Johnson, J. E., & Petzel, T. P. The effects of ego involvement and task difficulty on actual and perceived performance of depressed college students. Journal of Clinical Psychology, 1979, 35, 285-288.
- Zeiss, A. M., Lewinsohn, P. M., & Munoz, R. F. Nonspecific improvement effects in depression using interpersonal skills training, pleasant activities schedules, or cognitive training. Journal of Consulting and Clinical Psychology, 1979, 47, 427-439.

APPENDIX A

INDIVIDUAL WORKSHEET

DIRECTIONS: The following personality qualities are ones which various people have suggested are important for leading a well-rounded, well-adjusted life as a college student. Your task is to rank order them in terms of how important you see them as being for your college life to be a well-adjusted, well-rounded one.

Place number 1 by the most important quality, number 2 by the second most important, and so on, through number 15, the least important. You have 10 minutes to complete this phase of the exercise.

- _____ self-esteeming
- _____ mature
- _____ persistent
- _____ independent
- _____ serious
- _____ extraverted
- _____ serene
- _____ disciplined
- _____ happy
- _____ goal-oriented
- _____ self-concerned
- _____ self-confident
- _____ responsible
- _____ cooperative
- _____ assertive

NOTE: Each item must have its own ranking--no ties, please.

GROUP WORKSHEET

INSTRUCTIONS: This is an exercise in group-valuing. Your group is to employ the method of Group Consensus in reaching its decision. This means that the ranking for each of the 15 qualities must be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete approval. Try as a group to make each ranking one with which all group members can at least partially agree. Here are some guides to use in reaching consensus.

1. Avoid arguing for your own individual judgments. Approach the task on the basis of logic.
2. Avoid changing your mind only in order to reach agreement and avoid conflict. Support only solutions with which you are able to agree somewhat, at least.
3. View differences of opinion as helpful, rather than as a hindrance in decision-making.

_____ self-esteeming

_____ mature

_____ persistent

_____ independent

_____ serious

_____ extraverted

_____ serene

_____ disciplined

_____ happy

_____ goal-oriented

_____ self-concerned

_____ self-confident

_____ responsible

_____ cooperative

_____ assertive

APPROVAL SHEET

The thesis submitted by Linda J. Brownell has been read and approved by the following committee.

Dr. Thomas Petzel
Professor, Psychology, Loyola University

Dr. James E. Johnson
Associate Professor, Psychology, Loyola University

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Date

4/13/82

Director's Signature

Thomas F. Petzel