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A Correlation Study of Locus of Control and Depression in Individuals Experiencing Job Loss

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An Abstract Presented to the Faculty of the Graduate School
of Lindenwood College in Partial Fulfillment of the
Requirements for the Degree of
Master of Art
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CHAPTER 1

INTRODUCTION

The factors contributing to the mental health of persons who are losing their job are multifaceted. Most often when learning of someone who has lost a job, the first thing that comes to mind are thoughts of the economic consequences. The severance and benefits offer some comfort. Then the stark reality appears and brings the person back to face the emotional issues. The economic effects of losing the income, health insurance, security and pension benefits are the obvious stressful factors that threaten a person's state of mind (Krystal & Moran-Sackett, 1983). Although economic considerations are a heavy burden for one to manage, other factors like the loss of self identity, the loss of structure, social contacts, and the loss of self esteem liken this experience to the mourning of a loved one and are equally deserving of consideration in understanding an unemployed person's experience (Beckett, 1988).

Experiencing a job loss will often result in a sense of powerlessness from being unsuccessful in achieving one's means and goals (Ross & Mirowsky, 1989). The loss of personal functioning, combined with losing contact with the important factors of self are strong determinants of the state of an unemployed person's mind. When a person loses his/her job, he/she often experiences a dichotomy between the ideal image of self and real self (Finley & Lee, 1981). This sudden realization is startling to the person who has lost a job, due to his/her heightened sensitivity and vulnerability. To illustrate how a person's emotional state is impacted by job loss, Eales (1988), in a study on depression and anxiety, found that men unemployed for a period of 2 - 18 months, scored 18 or more on the Beck Depression Inventory (BDI). To put this information in perspective, BDI scores over 18 are considered to indicate moderate to severe depression (Beck & Steer, 1987).

CHAPTER 2

LITERATURE REVIEW

Although losing a job is indeed an end in the relationship with that employer, it is also a beginning. In the book Transitions, Bridges (1980) explains that every transition is started with an ending. And in the case of a person losing a job, being consumed with the finality of the situation and not seeing the opportunity as a beginning, is an obstacle. A cognitive style which is known to benefit those who are facing unemployment or seeking reemployment is a positive self-efficacy and an internal locus of control (Holmes & Werbel, 1992).

It is believed that control, perceived and actual, makes a difference in the way a person handles life's adversities (Lefcourt, 1982). There are differences and similarities in how people handle these events; thus, an examination of individual variables is worthwhile (Ganellen & Blaney, 1984). The two variables addressed in this study are depression and locus of control and

their relationship in individuals experiencing job loss.

Locus of control refers to the construct of how one perceives what happens in his/her life. Hanna Levenson (1973) has developed an instrument that will measure three elements of locus of control. The first is Internal (I) which describes the extent to which people believe they control their lives. The second and third are external constructs known as Powerful Others (PO), and Chance (C). PO and C are the extent to which people believe others and luck control their lives (Levenson, 1973).

An example of these ideas is illustrated in the following analogy. If a person's house is located near the river, and each year the river rises over it's banks and levees flooding the house, how does the person explain this event? If the person feels that he/she is responsible for choosing to live close to the river, that is an example of internal control. If the person blames the people who built the levees for the flooding, that person is displaying the locus of control

orientation - powerful others. And if the person claims that it is bad luck that the house is flooded, this locus of control orientation is known as Chance.

Those with a dominant internal orientation feel they can shape the events of their lives, whereas people with a predominant external locus of control orientation see their lives as being controlled by others, or luck (Ganellen & Blaney, 1984). All individuals will likely have some degree of each separate orientation in their personality, hence, each sub-scale score is independent of the other two sub-scales. Therefore, it is possible that a person may have higher **I** and **PO** scores and a lower **C** score. (Levenson, 1981).

The dependent variable of this study is depression. "Depression is the most common form of psychological distress," and is experienced by everyone to different degrees during their life. Hence, it is an appropriate measure of stressors like losing a job and unemployment (Ross & Mirowsky, 1989, p. 209). Not feeling in control

of what happens in one's life, good or bad, are symptoms of depression. Feeling depressed is thought to be connected with negative and inaccurate readings of the current and future environment (Larsen & Cowan; 1988). It is also believed that people tend to think in ways that make them susceptible to depressive episodes when faced with various situations. Burger (1984, p. 72) states this idea as such, "This pattern of attending, perceiving, and interpreting information may increase the likelihood of generating the depression inducing cognitions . . . ". The idea that cognitive styles play a role in one's susceptibility to depression is well documented in the literature (Burger, 1984; Mirowsky & Ross, 1990; Ganellen & Blaney, 1984).

Also, widely documented is the relationship between locus of control orientation and depression. That is to say, one's perception of control over what happens in life, is related to one's degree of depression (Mirowsky & Ross, 1990; Ganellen & Blaney, 1984). A sense of personal control and responsibility for both

success and failure was found to be related to lower levels of depression (Mirowsky & Ross, 1990). Rotter, (who developed the Rotter I-E scale) believed that an internal locus of control orientation acted as a buffer against stress, thus acting as a defense against depression (Ganellen & Blaney, 1984). People who possess a personal sense of responsibility resist the behaviors which follow depression. A person that is more likely to be described as Internal, finds that it comes naturally working to solve problems, as this manner of coping positively feeds one's self-assurance, self-esteem, and sense of control. This phenomenon was not evident in individuals identified with an external locus of control orientation, they do not have the same immunity to depression. It has been found that persons with these primary orientations, "have more pessimistic outcome expectancies, and so may put less effort into coping attempts than those who believe that they can influence outcomes." (Ganellen & Blaney, 1984, p. 334)

Numerous studies have found that LLOC has much predictive value with regard to depression and anxiety disorders (Bouman, Lambert, & Luteijin 1986; Benassi, Sweeney, & Dufour 1988; Holder & Levi, 1988; Mirowsky & Ross, 1990; Burger, 1984). To clarify, people scoring high on an I LLOC scale will report lower levels of depression. Conversely, individuals with higher scores in both forms of externality sub-scales may report higher levels of psychological distress (Burger, 1984). For Levenson's LOC instrument, all three scales are associated with various depression and anxiety maladjustments, with I negatively correlated and powerful others and chance positively correlated with depression and anxiety (Holder & Levi, 1988). A specific example is mentioned in Ganellen and Blaney's 1984 report, Stress, Externality, and Depression, where the "Internality, Powerful Others, and Chance (IPC) scales of the IPC correlate in the expected direction with BDI." The statistics are as follows where **r** is the degree and direction of the relationship between two variables and **p** is the alpha value: I is (r

= -.27, $p \leq .01$), **P** is ($r = .18$, $p \leq .05$), and **C** ($r = .19$, $p \leq .05$) (Ganellen & Blaney, 1984).

The demographics of these studies reflect that men and women did not differ significantly from each other in their scores on any of the locus of control scales; however, economic and education differences were visible in locus of control sample scores. Specifically, it was determined that whites, and those with higher income and education levels are more likely to feel in control of their lives (Holder & Levi, 1988; Ross & Mirowsky, 1989). Another observation that was not surprising, is that professionals and entrepreneurs were found to have high Internal scores. However, this was tempered with the fact that they also have moderately high Powerful Others scores, reflecting an appreciation for authority that exists in their world (Levenson, 1981).

The factors contributing to a person's state of mental health while they are losing their job, are multifaceted. The LLOC and BDI variables show both negative and positive correlations indicating

a probable relationship between pairs of the sub-scales. The idea, that perceived control over one's life is an effective defense mechanism against depression, and the predictive nature of the pairs of these variables is widely discussed in the literature.

Statement of Purpose

The purpose of this study was to better understand the correlation between Levenson's locus of control scale and Beck's Depression Inventory, in people about to lose their jobs. The null hypothesis was that no significant relationship between Levenson's LOC sub-scales and Beck's BDI was probable. The alternative hypothesis was that a significant relationship between Levenson's LOC sub-scales and Beck's BDI was probable.

CHAPTER 3

METHOD

This study took place in St. Louis, Missouri. The subjects of this study were employees of a billion dollar ophthalmic pharmaceutical company, who were about to lose their jobs. All had been given 2.5 years warning that the St. Louis division of the business was relocating to Fort Worth, Texas and had the option to relocate with the company to retain their jobs. The offer to move with the company included an attractive and very comprehensive relocation package. However, in spite of the security of a job with a growing, profitable company offering premium health and retirement benefits, many employees chose to stay in St. Louis and seek employment elsewhere. Over one half of the St. Louis based employees chose not to move and instead accepted the very attractive retention and severance package. The retention and severance package was contingent upon staying with the company through its transition period, and was contracted separately

for each employee based on how long his/her services would be needed. The retention bonus was a significant monetary incentive for employees not to leave before the company was ready to part with their services. This appears to have been a 'Win/Win' situation for both parties, as employees received a handsome bonus in addition to their salaries and the company was able to successfully relocate. Only five employees left before their retention period matured and no employees were fired during the retention period.

Subjects

The sample consisted of 17 employees who were retained until the final segment (last 2.5 weeks the facility was open) of the transition. Their participation was voluntary. A summary of their demographics appears in the Table 1.

Table 1

Sample Descriptives

Length of career in years	# of promotions	Gender	Age	Job waiting
3	1	M	31	Y
3	2	F	42	N
3	2	M	29	Y
4	0	F	35	N
1	0	M	39	N
5	2	M	36	Y
10	1	M	33	N
5	1	M	40	N
6	1	F	32	Y
2	0	F	29	N
3	1	F	25	N
3	1	M	62	N
8	2	F	35	N
3	1	F	29	Y
3	0	F	32	Y
4	1	M	24	Y
4	1	F	30	Y
Avg = 4	Avg = 1	M = 8 F = 9	Avg = 34	Y = 8 N = 9

The variables in the questionnaire were length of career with the company in years, number of promotions during career, gender, age, and whether the subject had a job waiting at the end of his/her retention period. The mode for career length was three, with a frequency of eight. This reflects a surge in growth and hiring within the company three years prior to the relocation. The gender mix was almost equal with 47% male and 53% male. The split was also about equal for those who did (47%) and did not (53%) have a job waiting. The sample as witnessed in the variables length of career, gender, and job waiting, reflects a well balanced sample.

Design

The data collected for this correlation study consisted of name, address, length of career with company, number of promotions, gender, age, and whether a job was waiting upon completion of the retention period. In addition, the following instruments were administered: The Levenson Locus of Control and the Beck Depression Inventory. Each subject completed the questionnaire, LLOC,

and BDI during their last week of employment. The LLOC measured three interval variables for each participant. They are Internal, Powerful Others, and Chance. The Beck results consisted of one interval variable for each participant.

Again, the null hypothesis states that no significant relationship between Levenson's LLOC sub-scales and Beck's BDI was probable.

Instruments

The Levenson LLOC was developed in 1973, by Hanna Levenson, to further explore externality and its division into Powerful Others and Chance (Levenson, 1973). Her refinement of Rotter's "I-E scale into the three orientations of internal, powerful others, and chance appears justified by the present data" (Levenson, 1973). This instrument consists of 24 items. The subject records their answer on a six point Likert scale which has a numerical score (i.e., -3 strongly disagree through +3 strongly agree). An index score for each sub-scale is calculated by adding 24 to the sum of the eight related items. The resulting index is a score between 0 and 48. The

greater the value, the stronger the orientation of that construct on the subject (Levenson, 1973). The instrument has been proven to have face validity and is also a reliable instrument of measuring locus of control constructs. Spearman-Brown split-half reliabilities are .62, .66 and .64 for the **I**, **P**, and **C** scales. After a period of one week test-retest reliabilities were in the .60 - .79 range (Levenson, 1981).

The Beck Depression Inventory (BDI) has become one of the most widely used instruments for detecting depression in psychiatric patients and also for identifying mild depression in normal populations (Beck & Steer, 1987). The instrument was first developed at the Center for Cognitive Therapy of the University of Pennsylvania Medical School. It has experienced one revision in 1972 since its introduction in 1971. The BDI questionnaire consists of 21 items, where the subject selects a statement for each item which best describes his/her feelings. Each of the 21 selected statements has a value assigned to it ranging from 0 through 3 for scoring purposes.

The scores range from 0 through 63, with the greater scores indicating a more severe level of depression (Beck & Steer, 1987). The wide use of this instrument has allowed for adequate testing of the reliability and validity. Previous research has shown the BDI to be internally consistent with a coefficient alpha of .81 for non-psychiatric samples (Koenig, Linda J.; Clements, Caroline M.; Alloy, Lauren B. 1992). With regard to validity, the BDI has shown a positive correlation of .60 with hopelessness (often hypothesized to be associated with depression), thus demonstrating solid construct validity (Beck & Steer, 1987).

CHAPTER 4

RESULTS

The descriptive statistics for this sample are displayed below in Table 2.

Table 2

Descriptive Statistics

(N = 17)

Descriptives	Avg	Max	Min	Range	Standard deviation
Internal	36	46	25	21	10
Powerful Others	18	31	0	31	11
Chance	16	36	2	34	10
BDI	8	29	0	29	8

The means reflect moderate scores for each variable. The values of the ranges and standard deviations for the variables indicates a wide distribution of scores for this sample.

In Table 3 the following statistics describe the relationship between the variables. The **r** statistic describes the magnitude or the degree and direction of the relationship between two variables. The r^2 is the value that can be viewed as a percentage that the two variables share in

variability. The values labeled **sig** describe the probability that the two variables are independent or dependent. The alpha value of .05 is used in the discussion of these statistics and the hypothesis testing.

Table 3

Correlation of Study Variables

(N = 17)

Correlation	Internal	Powerful Others	Chance
Powerful Others	r = -.4742 r^2 = .2247 sig = .054		
Chance	r = -.7324** r^2 = .5364 sig =.001	r = .8351** r^2 = .6974 sig =.00005	
BDI	r = -.2921 r^2 = .5364 sig = .255	r = .5035 r^2= .2535 sig =.039	r = .3607 r^2 = .1301 sig = .155

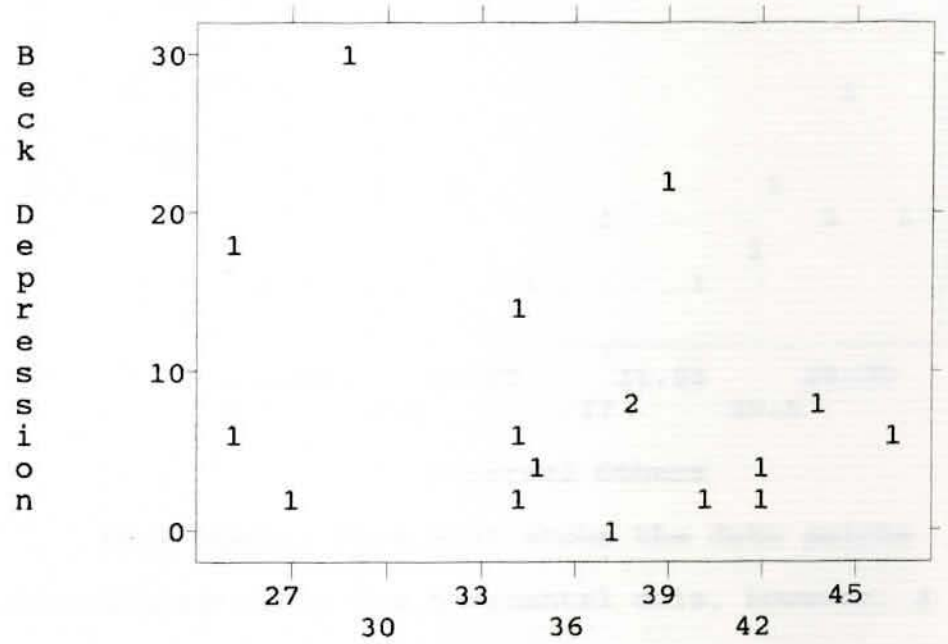
** $p \leq .01$

The strongest correlation between LLOC variables and BDI existed between Powerful Others and BDI with **r** = .5035. Among the same variables the greatest value of shared variability exists between Internal and BDI with $\mathbf{r^2}$ = .5364.

The following scatter plots provide a visual representation of the distribution of data points on the X and Y axis, thus illustrating their probable relationship.

Plot 1

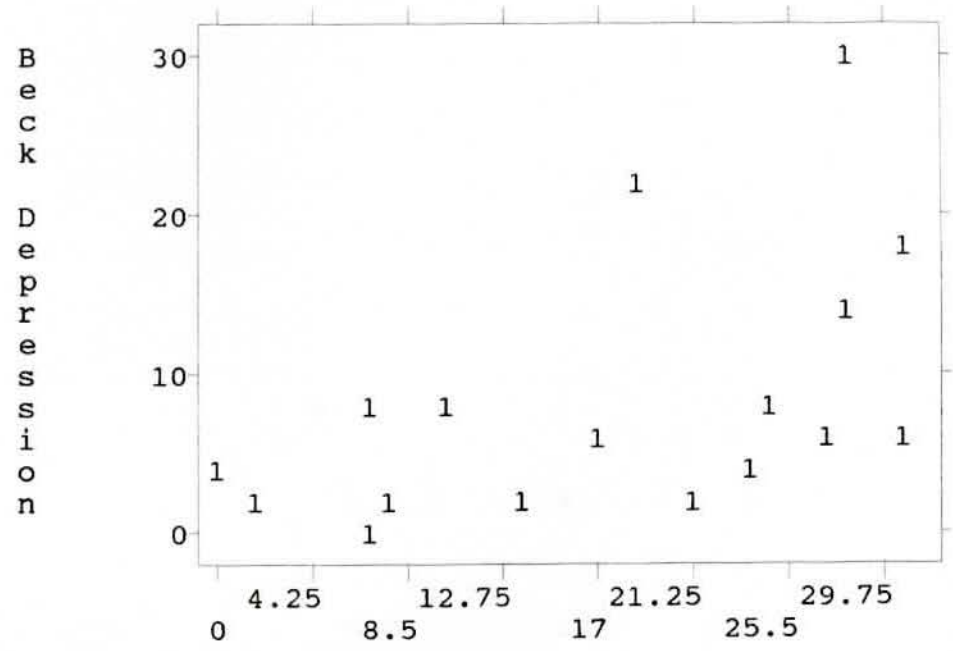
PLOT OF **BDI** WITH **Internal**



In this plot the array of data points appears to be grouped along the horizontal axis, with a slight left to right decline illustrating the r = -.2921.

Plot 2

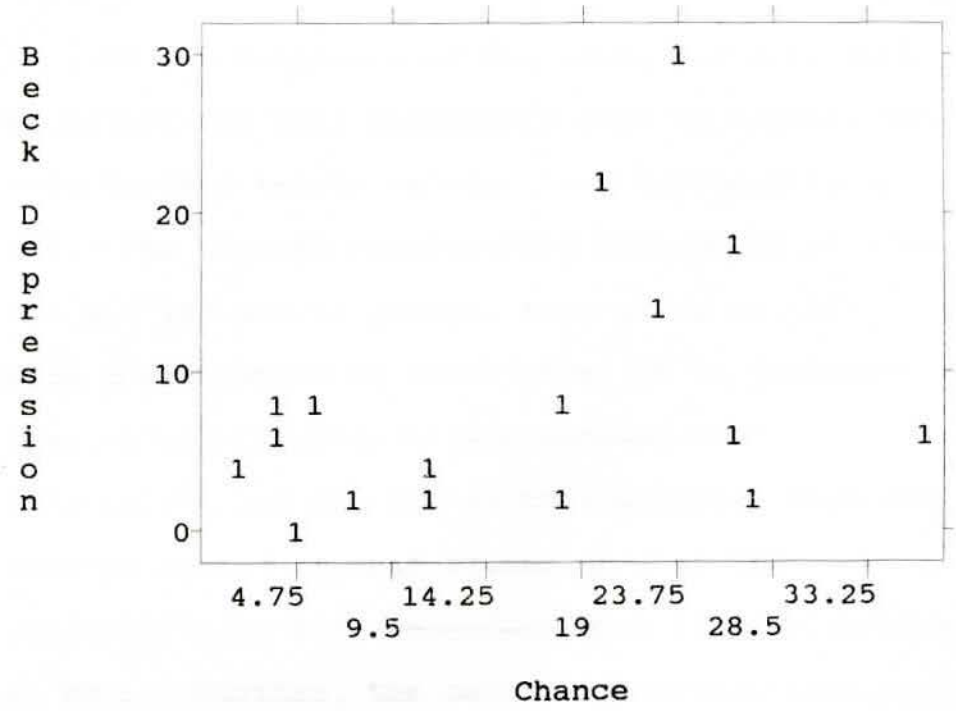
PLOT OF **BDI** WITH **Powerful Others**



Once again, this plot shows the data points distributed along the horizontal axis, however, a noticeable left to right rise can be seen as **r** = .5035.

Plot 3

PLOT OF **BDI** WITH **Chance**



This plot also illustrates the data points distributed along the horizontal axis, with a noticeable left to right rise as **r** = .3607.

CHAPTER 5

DISCUSSION

As a consequence of the study, we must fail to reject the null hypothesis that no significant relationship exists between LLOC Internality and BDI. The figures representing this point of view are $p = .25$ and is greater than the α of .05. With a 95% degree of confidence, it is probable that no relationship exists between LLOC Internality and the BDI in this sample. What can also be stated is that 53.64% (r^2) of the variability in I is dependent upon the variability in BDI. Further, the second hypothesis that LLOC Powerful Others has no significant relationship with BDI must be rejected. The value representing this point of view is $p = 0.039$ and is less than the α of .05. With a level of 95% confidence, it is probable that there is a relationship between LLOC Powerful Others and BDI. It is also probable that 25.35% (r^2) of the variability in Powerful Others is dependent upon the variability in BDI. For the third hypothesis, we must fail to reject

the null hypothesis that there is no significant relationship between Chance and BDI, as $p = .155$ and is greater than the α of .05. The magnitude of the relationship between Chance and BDI is $r = .3607$. This value describes a probable positive correlation between these variables. In addition, 13.01% (r^2) of the variability in Chance is connected with variability in BDI.

The relationships described in Table 4 closely follow what is described in the literature regarding LLOC and mental disturbances like depression. In fact, each of the LLOC relationships with BDI from this study support the relationships described in the literature. For example, the positive correlations of Internality and BDI, and the negative correlations with Powerful Others, as well as Chance related with BDI, are mentioned in other studies. An example of one of these citings is the following:

> Molinari and Khanna (1981) found negative correlations between scores on Levenson's I scale and depression and debilitating anxiety, a positive correlation between depression and the C scale, and positive correlations between the C and P scales and debilitating

> anxiety. (Holder & Levi, 1988, p. 753-754)

Another area where the study was consistent with the literature, was in the strength of I scores. In this study the averages of the three independent scales were as follows: **I** = 36, **PO** = 18, and **C** = 16. Beck's LLOC study in 1979 of 178 undergraduates reported the following mean scores **I** = 35.55, **PO** = 19.37, and **C** = 19.28 (Levenson, 1981). This illustrates Internality to be the predominant orientation, as was originally observed in Rotter's and later in Levenson's locus of control orientation. "The high mean I scale score seems quite consistent with past findings using Rotter's I-E scale, in which most Ss were overwhelmingly internally oriented" (Levenson, 1973, p. 379).

Another finding in this study regarding why people with a predominant internal orientation are less prone to depression, is that they perceive they can master or control their environment. In this study this idea is supported in the predominance of Internality and the lower levels

of depression. This is significant in that it promotes an active problem solving approach to life and encourages a coping style that feeds upon its own positive energy (Krause, 1986). Another way to describe this idea, is that people who believe their reinforcements are dependent upon their own behaviors, are naturally proactive, assertive, and problem solvers. All of these behavior characteristics are strong defenses against depression. The following statement concisely summarizes this idea. "The emotional value of an internal locus of control lies in its effectiveness" (Mirowsky & Ross, 1990).

This study has explored the negative correlation relationship between internality and depression. It is important to mention that the literature finds that the greatest degree of control is not ideal. Molinari as cited by Levenson (1981) finds, "Internality, as measured by the I Scale, was significantly and negatively related to depression and anxiety." The reason for this is that a great sense of control may foster "delusions or guilt" when life experiences

are less than ideal, yet the idea of 'being in control' continues to be the predominant perception (Mirowsky & Ross, 1990). This concept is also discussed by Krause (1986), where locus of control orientation characteristics of Internals may increase the vulnerability to stress among people who score in the extreme high end of this scale. This stress is due to self-blame, or a great sense of responsibility for not only the experienced success, but also failures (Krause, 1986).

As cited by Levenson (1981), Rotter theorized that people at either end of the locus of control orientation continuum might be more maladjusted than individuals with more moderate scores. In fact, he did theorize a curvlinear relationship between emotional adjustment and the locus of control orientation dimensions. The more extreme a person's I - E score the greater the susceptibility to depression and adjustment disorders (Levenson, 1981; Holder & Levi, 1988). As Mirowsky and Ross state:

> In this view, the optimum combination is a very high sense of responsibility for

> good outcomes but a moderate sense of responsibility for bad ones. The apparent parabola actually represents a defense interaction: greater responsibility for failure reduces the value of greater responsibility for success (Mirowsky and Ross, 1990, p. 76).

The idea that the relationship between internal locus of control and BDI is not linear, cannot be illustrated with this study due to sampling. However, the logic behind this theory appears to have basis.

Having these two instruments to measure these variables is very helpful in identifying where subjects fall on the continuum and then understanding what aspects of personality are involved. In this study, considering that the subjects completed the instruments on their last day of employment, higher externality and depression scores were expected by this author. The magnitude of the LLOC and BDI relationships, and the degree that they mirrored the findings in the literature, suggests that the study was probably consistent.

Limitations and Recommendations

With regard to future studies and weaknesses, the following ideas are offered. In a future study it would be interesting to know what the normative scores are for the LLOC scales and different populations. Also, where the Levenson Internal scale scores move from moderate to extreme. This would be a difficult study due to the subjective nature of this construct, but would provide useful information regarding the increased susceptibility that an extreme Internal individual has to depression.

The greatest weakness this study had was the small sample size. Further, the sample consisted of individuals from one company. This is limiting in that the severance or exit package they received may have influenced the responses on the two instruments, and this variable would possibly have been balanced by having subjects participate from other companies. An increased sample size, where several organizations were included would have acted to smooth or minimize those biases. Another limitation is that some of the subjects

had jobs waiting and others did not. It is possible that this variable may have influenced the results and was not accounted for in the study. It also would have been interesting to have observed and documented the results of the same instruments administered to the same subjects 30 days after the employees' termination day. This information would offer insight into the transformation an individual goes through during the stress of enrolling for unemployment benefits and beginning to earnestly search for a job.

REFERENCES

Aldwin, Carolyn M. (1991). Does age affect the stress and coping process: Implications of age differences in perceived control. Journals of Gerontology. Vol 46(4) pp174-180.

Amundson, Norman E. & Borgen, William A. (1982). The dynamics of unemployment: Job loss and job search. Personnel and Guidance Journal. 60 562-564.

Beck, Aaron T. & Steer, Robert A. (1987). Beck Depression Inventory Manual. San Antonio: The Psychological Corporation.

Beckett, Joyce O. (1988). Plant closings: How older workers are affected. Social Work. 33 29-33.

Benassi, Victor A.; Sweeney, Paul D.; Dufour, Charles L. (1988). Is There a Relation Between Locus of Control Orientation and Depression? Journal of Abnormal Psychology. Vol 97(3) pp357-367.

Bouman, Theo K.;Lambert, Hein; Luteijn, Frans (1986). Mood connotations of a locus of control questionnaire. Psychological Reports. Vol 59(3) pp1055-1059.

Bridges, William (1980). Transitions. New York: Addison Wesley

Brown, Jonathan D.; Siegel, Judith M. (1988). Journal of Personality and Social Psychology. Vol 54(2) pp316-322.

Burger, Jerry M. (1984). Desire for Control, Locus of Control, and Proneness to Depression. Journal of Personality. Vol 37 pp71-89.

Eales, M. J. (1988). Depression and anxiety in unemployed men.Psychological Medicine. Vol 18(4) pp 935-945.

Finley, M. H., & Lee, A.T. (1981). The terminated executive: It's like dying. Personnel & Guidance Journal. 59 382-384.

Flannery, Raymond B. (1986). Personal control as a moderator variable of life stress: Preliminary inquiry. Psychological Reports. Vol 58(1) pp200-202.

Fusilier, Marcelline R.; Ganster, Daniel C.; Mayes, Bronston T. (1987). Effects of social support, role stress, and locus of control on health. Journal of Management. Vol 13(3) pp517-528.

Ganellen, Ronald J.; Blaney, Paul H. (1984). Stress, Externality, and Depression. Journal of Personality. Vol 52(4) pp326-337.

Hoffart, Asle; Martinsen, Egil W. (1991). Mental health locus of control in agoraphobia and depression: A longitudinal study of inpatients. Psychological Reports. Vol 68(3,Pt 1) pp1011-1018.

Holder, Elaine E.; Levi, Daniel J. (1988). Mental Health and Locus of Control: SCL-90-R and Levenson's IPC Scales. Journal of Clinical Psychology. 1988 September Vol 44(5) pp753-755.

Holmes, Barbara H.; Werbel, James D. (1992). Finding work following job loss: The role of coping resources. Journal of Employment Counseling. Vol 29(1) pp22-29.

Joelson, Lars; Wahlquist, Leif (1987). The psychological meaning of job insecurity and job loss: Results of a longitudinal study. Special Issue: Unemployment and health. Social Science and Medicine. Vol. 25(2) pp179-182.

Koenig, Linda J.; Clements, Caroline M.; Alloy, Lauren B. (1992). Depression and the illusion of control: The role of esteem maintenance and impression management. Special Issue: The psychology of control. Canadian Journal of Behavioral Science. Vol 24(2) pp233-252.

Krause, Neal (1986). Stress and coping: Reconceptualizing the role of locus of control beliefs. Journal of Gerontology. Vol 41(5) pp617-622.

Kreitler, Shulamith: Dreitler, Hans (1991). The psychological profile of the health-oriented individual. European Journal of Personality. Vol 5(1) pp35-60.

Krystal, Esther, & Moran-Sackett, Marsha & Thompson, Sylvia V. & Canton, Lucile (1983). Serving the Unemployed. Social Casework. 64 67-76.

Larsen, Randy J.; Cowan, Gregory S. (1988). Internal focus of attention and depression: A study of daily experience. Motivation and Emotion. Vol 12(3) pp237-249.

Lefcourt, Herbert M. (1982). Locus of Control and Coping Behavior. Locus of Control Current Trends in Theory and Research. 2nd Edition. Lawrence Erlbaum Associated Publishers: Hillsdale, NJ. pp101-109.

Lester, David (1989). Locus of control, depression and suicidal ideation. Perceptual and Motor Skills. Vol 69(3, Pt 2) p1158.

Lester, David (1989). Relationship between locus of control and depression mediated by anger toward others. Journal of Social Psychology. Vol 129(3) pp413-414.

Levenson, Hanna (1973). Multidimensional locus of control in psychiatric patients. Journal of

Consulting and Clinical Psychology. Vol 41 pp397-404.

Levenson, Hanna (1981). Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.), Research with the locus of control construct: Vol. 1. Assessment methods. pp 15-63. New York: Academic Press.

Mallinckrodt, Brent (1990). Satisfaction with a new job after unemployment: Consequences of job loss for older professionals. Journal of Counseling Psychology. Vol 37(2) pp149-152.

Mallinckrodt, Brent; Fretz, Bruce R. (1988). Social Support and the impact of job loss on older professionals. Journal of Counseling Psychology. Vol 35(3) pp281-286.

Mirowsky, John; Ross, Catherine E. (1990). Control or defense: Depression and the sense of control over good and bad outcomes.Journal of Health and Social Behavior. Vol 31(1) pp71-86.

O'Brien, Gordon E. (1981). Locus of control, work, and Retirement. In H. M. Lefcourt (Ed.), Research with the locus of control construct: Vol. 3. Assessment methods. pp 15-63. New York: Academic Press.

Quinn, David; Norris, Hugh (1986). Multidimensional Health Locus of Control: A new perspective on the psychopathology of anxiety and depression? Psychological Reports. Vol 58(3) pp903-914.

Remondet, Jacqueline H.; Hansson, Robert, Robert O. (1991). Job-related threats to control among older employees. Journal of Social Issues. Vol 47(4) pp129-141.

Ross, Catherine E.; Mirowsky, John (1989). Explaining the social patterns of depression:

Control and problem solving: or Support and talking? Journal of Health and Social Behavior. Vol 30(2) pp206-219.

Vinokur, Amiram; Caplan, Robert D. (1987). Attitudes and social support: Determinants of job-seeking behavior and well-being among the unemployed. Journal of Applied Social Psychology. Vol 17(12) pp1007-1024.