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**THE RELATIONSHIP BETWEEN LOCUS OF CONTROL  
AND GUILT: A CROSS-CULTURAL PERSPECTIVE**

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**PRATYUSHA TUMMALA**

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THE RELATIONSHIP BETWEEN LOCUS OF CONTROL AND GUILT:  
A CROSS-CULTURAL PERSPECTIVE

By

Pratyusha Tummala

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

MASTER OF ARTS

Department of Psychology

1993

## ABSTRACT

### THE RELATIONSHIP BETWEEN LOCUS OF CONTROL AND GUILT: A CROSS-CULTURAL PERSPECTIVE

By

Pratyusha Tummala

The present study investigated the notion that an internal locus of control orientation is associated with higher levels of guilt within a cross-cultural context. This hypothesis is consistent with cognitive theories which have postulated that guilt is associated with an individual's belief that events are a result of his/her own actions or characteristics. Indian-Americans were expected to exhibit more externality and lower levels of guilt than Caucasian-Americans, given the ideological differences (group-centered vs. individual-centered) which characterize the two cultural groups.

Caucasian-American and Indian-American students were administered Rotter's Internal-External Locus of Control Scale, narratives which were intended to induce guilt, the Thematic Apperception Test, and a likert scale measure of guilt. The hypothesis that internal locus of control is associated with higher levels of guilt was not corroborated. Indian-Americans did not exhibit significantly more externality and lower levels of guilt than Caucasian-Americans. Possible explanations for these results are elaborated.

*This manuscript is dedicated to my mother, Sabita Rao  
Tummala, my father, Madhusudana Rao Tummala, and  
my brother, Pradyumna Tummala.*

## ACKNOWLEDGMENTS

This study would not have been possible without the support of several individuals. I would like to convey my deep gratitude to my chairperson, Dr. Joseph Reyher, for his invaluable contributions to my growth as a researcher and my understanding of philosophy of science. I am especially grateful for his guidance throughout the many gradations which comprised this project. I would also like to thank my committee members, Dr. Norman Abeles and Dr. Dozier Thornton for their thoughtful suggestions. I wish to express my appreciation for two of my colleagues and dear friends, Catherine Costigan and Todd Eaton for their guidance throughout the latter portions of this study. In addition, I would like to mention that the quality of this project was notably enhanced by the diligence and dedication of the undergraduate students who were involved with collecting and scoring data.

Furthermore, the generous support of my family and friends is sincerely appreciated. I would like to convey my profound gratitude to my parents, Madhusudana Rao Tummala and Sabita Rao Tummala, for supplying me with unparalleled love, patience, and support throughout the duration of this study. They have provided me with an understanding of Indian

heritage which has deeply enriched my intellectual and emotional growth. This study also would not have been possible without the love and support of my brother, Pradyumna Eswara Tummala, and my sister-in-law, Anita Kim Tummala. I also wish to thank my family in Saginaw, the Magantis, for their love and encouragement throughout my education, and my family in Okemos, the Tummalas, for their care and support throughout this project. Finally, I would like to convey my immeasurable appreciation for my paternal grandparents, Tummala Venkateswara Rao and Tummala Venkamma, my maternal grandparents, Kakarla Subbarao and Kakarla Lakshmi, and my family in India for providing me with the inspiration for this study.



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## INTRODUCTION

Research on cross-cultural variations in depressive symptomatology has yielded mixed findings. The results obtained during a multi-center international study (Sartorius, Jablensky, Gulbinat, and Ernberg, 1980) have led to the conclusion that the core symptoms of depression, including sadness, feelings of worthlessness, lethargy, decreased interest, and concentration vary little from country to country. However, recent research has identified differences in the depressive symptomatology between Eastern and Western cultures, particularly between Indian and Western cultures. In Gada's study (1982), in which 100 cases of depression from Western India were compared with cases of depression in England, British patients reported significantly more guilt than Indian patients. Several other studies by Sethi, Nathawat, and Gupta (1973) and Venkoba Rao (1973) have demonstrated that guilt feelings occur less frequently in depressed Indian subjects than their Western counterparts. Yap (1965) noted the "rarity and mildness of the ideas of guilt and unworthiness expressed," with regard to depressed Chinese individuals.

According to Venkoba Rao (1973), a tendency to blame the past for present contingency rarely leads to feelings of

guilt, and such a submission to the past serves to eliminate the individual of guilt. Hence, attributing negative events to external factors may account for the cross-cultural differences in the depressive symptoms of guilt and self-blaming. Julian Rotter's theory of locus of control (1966) encompasses the distinction between internality and externality in the realm of attributional thinking, which may be related to the development of guilt symptoms in depressives. According to Rotter, if an individual's generalized expectancy of a reinforcement is perceived as a result of luck, chance, fate, as under the influence of powerful others, or unpredictable because of the complexity of forces surrounding him/her, then this perception is labeled as external locus of control. If the person believes that an event is contingent upon his/her own behavior or relatively permanent characteristics, this perception is known as internal locus of control (Rotter, 1966). In addition, Rotter (1966, p.1) stated, "A perception of causal relationship need not be all or none but can vary in degree."

Research on cross-cultural variations in locus of control (Rotter, 1966) has indicated mixed findings (Hui, 1982). However, most of these studies suggest that Western cultures ( i.e. United States and England) foster internality, whereas Eastern societies ( i.e. Japan and India) idealize a sense of externality in attributional thinking. Specifically, Sinha, Singh, and Shukla (1986) stated that Indian culture is characterized by

dependence-proneness, preference for personalized relations, status orientation, and loyalty. The Indian society consider social groups, family units, and powerful religious forces as vital elements of daily living. Thus, it reflects the sociocentric emphasis of cultural conceptions and practices of the Hindu religion, which is the prevailing religion in contemporary India (Kakar, 1978). Western cultures, on the other hand, emphasize the importance of self-reliance, independence, and personal choice (Sinha et al., 1986).

Sinha, Singh, and Shukla's study (1986) on locus of control in Indian executives and their counterparts in Western cultures indicated that the salience of powerful other people (externality) was substantially high for the controllability of events, compared to the influence of the self (internality). Moreover, the findings suggested that the composition of locus of control is more external than their Western counterparts. Several other studies have specified this distinction between internality and externality in Eastern and Western cultures (Hsieh, Shybut, & Lotsof, 1969; Kumar, 1986; Mathew, 1985).

The findings concerning locus of control in Indian society may have implications for Indian-American individuals. It is likely that Indian-Americans maintain an external outlook, since they are socialized by their families to uphold their sociocultural values and belief systems of origin. Most Indian-Americans, who were born in the U.S. or immigrated during early childhood to the U.S., experience

several pressures from their parents and other relatives to adhere strictly to the values and beliefs to which their parents were accustomed during their lives in India.

Although these parents had originally emigrated from India, seeking increased opportunities in education and career success, they may have been unaware of the cultural changes which they were to encounter in their host nation. As a result of the anxiety experienced as a response to such changes, these individuals seek desperately to maintain what they have known to be their culture, as well as transmit these beliefs to their offspring. Meanwhile, India has been subject to several recent Western influences, including both social and cultural domains. Indian-Americans continue to idealize traditions which are no longer prevalent in India, due to its urbanization and Western influences.

Cognitive theories of depression emphasize the relationship between cognitive and affective components of depressive symptomatology. Jarrett and Weissenburger (1990) reported that depressed outpatients show significantly more guilt than normal subjects in most situations, as measured by the Situational Guilt Scale (SGS). Furthermore, Harrow and Amdur (1971) found that patients experiencing more guilt possess negative self-images, whereas non-guilty patients have positive self-images. Beck, Rush, Shaw, and Emery (1979) suggested that guilt is a result of the presence of negative cognitions involving self-blame or punishment. Similarly, in light of the cognitive framework, Abramson,



Seligman, & Teasdale (1978) suggested that guilt is the product of internal, global, and stable attributions, where an individual chooses to attribute the cause of negative events to internal characteristics possessed by him or her, as opposed to factors external to himself/herself.

Garcia and Blythe (1977) define two basic ideas which underlie guilt feelings, including the idea of having engaged in an action which is perceived as wrong, and the devaluation of oneself for the perceived wrongdoing. According to Murphy (1980), the primary facilitator of guilt is the equating of one's behavior with one's worth as an individual.

Furthermore, the individual perceives that others possess the responsibility for determining the morality of their actions, and consequently nurtures guilt feelings. Lazarus and Fay (1975) suggest that guilt-related behavior is often created and maintained by the notion that the individual directly causes others' emotional pain through his/her actions.

Similarly, Lindsay-Hartz (1984) indicates that the central event of experiences of guilt involves a violation of a moral order for which the individual takes responsibility.

Although the individual may be aware that others can be blamed for such a violation, he/she believes that he/she is at fault. Lindsay-Hartz (1984) suggests that guilt can be used to support a sense of control and order in the external world, and that if an individual gives up his/her sense of control, he/she would not feel guilty.

### *Hypothesis*

In light of this theoretical framework, the following hypothesis was formulated: An orientation toward internal locus of control, as opposed to externality, is associated with guilt and self-blaming, where an individual takes responsibility for violating a social or personal norm. This is consistent with previous research which has indicated the fact that guilt and self-blaming are associated with an individual's belief that events are a result of his/her own actions or characteristics. The relationship between guilt and locus of control was examined in a cross-cultural context, comparing the frequency of guilt feelings with locus of control orientations among Indian-American and Caucasian American individuals.

### *Predictions*

The following predictions were derived from the hypothesis:

1. Indian-American subjects would exhibit fewer guilt and self-blaming feelings than their Caucasian American counterparts.
2. Indian-American subjects would exhibit higher scores on Rotter's Internal-External Locus of Control Scale (more externality) than Caucasian-American subjects.
3. Indian-American subjects would exhibit cognitive and affective behaviors which are congruent with an Indian belief

system that is more traditional than the belief system prevalent in modern India.

## METHOD

### *Subjects*

After obtaining approval from UCRIHS, 10 male and 10 female Indian-American students were drawn primarily from the Indian-American Students Association at the University of Michigan (Ann Arbor) and the Coalition of Indian Undergraduate Students at Michigan State University (East Lansing). The Indian-American students in Ann Arbor were tested in a private room similar to 47 Snyder Hall, where the students from MSU participated in this study. 10 male and 10 female Caucasian -American students were selected from various European language and ethnic organizations including Spanish Club, French Club, Viva Italia (Italian Club), Level II Italian classes, Nossa Turma (Portuguese organization), and German Club, at Michigan State University. Those Indian-American students who were either born in the United States or had immigrated to the United States before the age of twelve were included in the study. All of these subjects were undergraduate students at their respective universities. The subjects were checked for socioeconomic backgrounds, in terms of parents' occupational backgrounds. Although these samples may not completely represent their respective cultures at large, it was assumed that they are

representative of many college students in their respective cultures. Due to practicality and convenience of the experimenters, the Indian-American and Caucasian-American samples were selected only from the universities in Michigan.

The age range of the participants in both cultural groups was 18 to 32 years of age (mean = 21.1). The students' class levels ranged from 1st to 4th year of college, and 75% of the participants were either 3rd or 4th year university students. All of the participants in the Caucasian-American group were born and raised in the United States, with the exception of 3 students. Two of these students were born in Italy and have resided in the U.S. for over 3 years. The other student was born in the U.S., but resided in West Germany until 5 years prior to his participation. Ten Indian-American participants were born in India and have resided in the U.S. for a number of years (between 9 and 20 years). The rest of the students in this group were born and raised in the United States.

### *Materials*

The Rotter (1966) Internal-External Locus of Control Scale was used to measure internal and external orientations of the subjects. This scale is intended to measure a generalized expectancy which is assumed to be related to the value an individual places on a specific locus of control orientation (internal vs. external). Rotter's scale (Rotter, 1966) includes a 29-item, forced choice test along with six

filler items intended to make the purpose of the test somewhat ambiguous. The Internal-External Scale has been evaluated in the Indian society, and its psychometric properties have been well established (Lefcourt, 1983). Rotter (1966) reported an internal consistency coefficient of .70 for the Internal-External Locus of Control Scale from a sample of 400 college students. The items on this scale can be seen in Appendix A, along with instructions given by experimenters.

Four narratives, three of which serve the purpose of inducing guilt or self-blaming feelings, have been developed by the experimenter for the purposes of this experiment. The first narrative was designed to produce neutral affect, excluding guilt or self-blaming, and serve as a baseline narrative for the subjects. The three subsequent guilt inducing narratives were developed on the basis of the Reaction Inventory-Guilt (Evans, Jessup, & Hearn, 1975), which consists of 50 guilt provoking situations along with a rating scale of the intensity of guilt feelings which were experienced for each situation. Each subject, as he/she reads each narrative aloud, was asked to imagine himself/herself as an active participant in the events taking place in each narrative. Both the Reaction Inventory-Guilt and the measure developed for the present study are based on a similar conception of guilt, that is guilt as a situation specific phenomenon. Since guilt is viewed as a result of specific stimulus situations, in the theoretical framework of

this study, three different narratives were used, instead of only one story, as a better way to sample this domain of guilt. The four narratives, along with experimenter's instructions to subjects, can be found in Appendix B.

Three cards from Murray's Thematic Apperception Test (TAT) served as one of the dependent measures of guilt. The TAT is a projective technique which is assumed to enable the experimenter to measure guilt with fewer demand characteristics than self-report guilt inventories. The three TAT cards (4, 6GF, & 14) which will be used in the study have been shown to be sensitive to the subject's feelings of guilt and self-blaming (Dr. Reyher, 1991). The second measure of guilt, which was designed for this study, is a likert scale type questionnaire consisting of ten items. The subjects were asked to rate whether they agree or disagree with each item on a scale from 1 to 5. This scale consists of more directed questions about the extent of the guilt feelings experienced by the subjects after reading the guilt-inducing narratives. This scale, along with instructions to the subjects, is found in Appendix C.

### *Procedure*

Subjects were recruited by the author at various organizational meetings of the cultural organizations mentioned above. Members of the organizations were asked to volunteer approximately 45 minutes to participate in a cross-cultural study which was aimed to examine similarities and

differences between various cultural groups on college campuses with regard to social perception and beliefs. They were told that they would be asked to complete some questionnaires and read and write some stories if they chose to participate in the study. A written form of this request for participation can be found in Appendix D. The participants were also informed that the author would be providing written feedback to each of the participants following the analysis of the data collected. The written feedback which was distributed to the participants can be indicated in Appendix E. The members of the organizations who exhibited interest in the study were asked to provide the author with their phone numbers and times when they would be available for participation.

The experimenters in this study consisted of both genders and were upper-level undergraduate students majoring in psychology at Michigan State University. The experimenters were trained to administer the various measures in this study in a standardized manner. A pilot study of the guilt-induction task, which consisted of the administration of the four narratives and the TAT was conducted on ten Michigan State University undergraduates, in order to check the effectiveness of the manipulations, prior to gathering actual data.

Each of the subjects were contacted by one of the four experimenters by phone and asked to make an appointment for participating in the study which was held at an office at



MSU. When the subject arrived at the appointed time, the experimenter conducted him or her into the office. The subject was seated in a wooden chair in front of a large desk, facing a wall. The subject was asked to complete a consent form and then was told that the study would involve filling out some questionnaires, and reading some short stories and writing stories.

The subject was then asked to complete a form concerning his or her background information, including age, gender, year of college, ethnic background, parents' occupations, and whether or not he or she was born in the United States. This form can be found in Appendix F. The subject was then asked to complete the Rotter Locus of Control Scale, as the experimenter seated himself or herself at his or her own desk. The English version of all measures was administered to both groups of subjects. The Indian-American subjects were not given a separate translation of their respective Indian languages, since they were assumed to be fluent in English.

Following the completion of these tasks, the subject was asked to read the four narratives aloud in the office room in the absence of the experimenter. The experimenter left the room and remained in a room across the hallway until the subject indicated to the experimenter that he or she had completed the task. Then the three cards from the Thematic Apperception Test along with several blank sheets of paper were handed to the subject and he or she was asked to write

stories about these picture cards. Again, this task was administered in the absence of the experimenter, who left the room until the subject informed him or her of the completion of the task. Specific instructions for the TAT are indicated in Appendix G. Following the TAT, the subject provided his or her responses to the likert scale items developed to measure guilt.

At the end of testing, the experimenter asked a few more questions to each subject for the purpose of debriefing, and obtained information about the subject's perceptions about the experiment. The following questions composed this debriefing:

1. What do you think the experiment was all about?
  2. Do you have any thoughts about the stories youv'e read?  
If so, please explain them.
  3. What was in your mind when I showed you the picture cards?
- The responses to these questions were recorded verbatim by the experimenter.

### *Scoring Methods*

A scoring system for the subjects' responses to the TAT cards was designed, in order to reduce experimenter biases in interpretation of the responses. This scoring system involved rating the degree of guilt on a 6-point scale, in which various equivalents of guilt in the English speech lexicon consisted the various categories of guilt (Appendix H). Individual scores of the three stories were compiled to

form the final score of guilt as measured by the TAT. The TAT stories were scored by two experimenters who were blind to the identity of the subjects. Discrepancies in scores given by the two experimenters were resolved by the author and the experimenters discussing each TAT story in question. The scores for the Rotter Locus of Control Scale were computed by adding the number of total responses which reflect external statements as originally suggested by Julian Rotter (1966). The possible range of scores on Rotter's LOC scale for the subjects was 1 to 19.

## RESULTS

### *Scoring Systems for Measures*

A Pearson correlation of  $r = .94$ ,  $p < .01$  was attained for interrater reliability of the TAT scoring system, with the scores ranging from 1 to 40. The scores for the Rotter Locus of Control Scale were computed by adding the number of total responses which reflect external statements as originally suggested by Julian Rotter (1966). The range of scores on Rotter's LOC scale for the subjects was 1 to 19. The likert scale task which was devised to measure guilt yielded a range of scores between 21 and 46, with the highest numbers reflecting a greater degree of guilt.

### *Experimental Hypothesis*

The hypothesis that an orientation toward internal locus of control is associated with increased levels of guilt was examined by studying the functional relationships among the three measures used in this study (Rotter LOC Scale, TAT, and likert scale) within the context of the two cultural groups. Tables 1, 2, and 3 indicate a series of correlations among the results of the Rotter Locus of Control Scale, likert scale and TAT, both within each of the cultural groups as well as within the total sample of students.

**Table 1**

**Pearson Correlational Analyses of TAT, Likert Scale, and  
Rotter's I-E Locus of Control Scale Within Caucasian-American  
Group**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	-.33	--
Likert	-.1	.24

---

\*p<.05

**Table 2**

**Pearson Correlational Analyses of TAT, Likert Scale, and  
Rotter's I-E Locus of Control Scale Within Indian-American  
Group**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	-.06	--
Likert	-.19	.01

---

\*p< .05

**Table 3**

**Pearson Correlational Analyses of TAT, Likert Scale, and  
Rotter's I-E Locus of Control Scale Within Total Sample**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	-.22	--
Likert	-.10	.09

---

\* $p < .05$

These results indicate no significant relationship between guilt and locus of control in either cultural group. Contrary to expectations, those individuals who indicated a more internal locus of control did not seem to experience significantly higher levels of guilt as measured by the Thematic Apperception Test and the likert scale. However, this analysis does indicate a possible trend for an inverse relationship ( $r = -.33$ ) between locus of control orientation and guilt as measured by the TAT, within the Caucasian-American cultural group, indicating that those Caucasian-American subjects scoring lower scores on Rotter's scale (higher internality) may have experienced higher levels of guilt. The possibility of this trend existing within the Indian-American group appears to be less likely

( $r = .06$ ). In sum, these findings did not corroborate the hypothesis that internal locus of control is associated with higher levels of guilt.

#### *Prediction 1*

The prediction that Indian-American subjects exhibit fewer guilt and self-blaming feelings than their Caucasian-American counterparts was not borne out as measured by the TAT ( $t = 1.26$ ,  $df = 38$ ,  $p > .05$ ). The results of the likert scale indicated similar findings ( $t = -1.07$ ,  $df = 38$ ,  $p > .05$ ). Students  $t$ -tests were used to examine the mean differences in TAT and likert scale responses (guilt) between the two cultural groups. Tables 4 and 5 list these findings. Although the difference between the means on the TAT was not statistically significant, the means for the two cultural groups were in the predicted direction, with Indian-Americans (Mean = 3.95) displaying lower levels of guilt when compared to the Caucasian-American group (Mean = 6.90). On the other hand, the difference between the means on the likert scale were in the opposite direction of prediction 1 (Mean = 35.3 for Caucasian-American subjects; Mean = 37.5 for Indian-American subjects).

**Table 4****Students T-test For Differences in Guilt as Measured by the TAT**

Group	Mean	SD	t	N	DF	p
Caucasian-Americans	6.90	9.14	1.26	20	38	.21
Indian-Americans	3.95	5.05	1.26	20	38	.21

\*p< .05

**Table 5****Students T-test For Differences in Guilt as Measured by Likert Scale**

Group	Mean	SD	t	N	DF	p
Caucasian-Americans	35.3	6.30	-1.07	20	38	.29
Indian-Americans	37.5	6.68	-1.07	20	38	.29

\*p< .05



*Predictions 2 and 3*

Prediction 2 that Indian-American subjects will exhibit significantly more externality than Caucasian-American subjects also was not borne out, as measured by the Rotter Internal-External Locus of Control Scale ( $t = -1.16$ ,  $df = 38$ ,  $p > .05$ ). A t-test was used to detect mean differences in locus of control between the Caucasian-American and Indian-American groups. Table 6 indicates the results of this analysis. Although the difference between the means between the two cultural groups was not significant, the means were in the predicted direction with the Indian-American subjects (Mean = 11.0) exhibiting a higher level of externality than the Caucasian-American subjects (Mean = 9.45). An effort was made to calculate a critical score for differentiating subjects' externality and internality on the Rotter Internal-External LOC Scale. Guilford's (1950) formula for computing a critical score for an artificial dichotomy, which is elaborated in Appendix I, yielded a critical score of 10.2 (Total Sample Mean=10.2, SD=4.16). The total sample mean for Rotter's scale in the present study is similar to the mean of 10.92 found by Holmstrom, Karp, and Silber (1991) in their study of 131 undergraduate students which examined the relationship between the Apperception Personality Test and Rotter's Internal-External LOC Scale. Given the critical score of 10.2 in the present study, scores which exceeded 10.2 were considered to fall in the range representing external locus of control, while those scores below 10.2 were

considered to fall in the range of internal locus of control. Although the means of the two cultural groups on Rotter's scale clustered closely around the critical score of 10.2, the Indian-American group can be considered to be marginally external (mean > 10.2), whereas the Caucasian-American group may be considered as marginally internal (mean < 10.2) with respect to locus of control orientation.

Prediction 3 which stated that Indian-Americans exhibit cognitive and affective behaviors that are congruent with an Indian belief system that is more traditional than the belief system prevalent in India was also not borne out based on the analyses indicated in Tables 4, 5, and 6.

**Table 6**

**Students T-test For Differences in Locus of Control as  
Measured by Rotter's I-E Locus of Control Scale**

Group	Mean	SD	t	N	DF	p
Caucasian-Americans	9.45	4.37	-1.16	20	38	.25
Indian-Americans	11.0	4.05	-1.16	20	38	.25

\*p< .05

*Summary*

Contrary to the author's predictions, no significant differences in guilt and locus of control, as measured by the Thematic Apperception Test, likert scale, and Rotter Locus of Control Scale, respectively, were found between the two cultural groups. Indian-American and Caucasian-American students indicated a similar pattern of scores on both measures of guilt as well as locus of control. Indian-American subjects' mean score for guilt as measured by the TAT was 3.95, while the mean score for the Caucasian-American group was 6.90. The mean score for guilt as measured by the likert scale for the Indian-American group was 37.5, while the mean for their Caucasian-American counterparts was 35.3, at the .05 level of alpha. Furthermore, Indian-American subjects scored a mean of 11.0 and Caucasian-American subjects scored a mean of 9.45 on the Rotter Locus of Control Scale. Contrary to expectations, the Indian-American subjects did not indicate experiencing lower levels of guilt or self-blame than their Caucasian-American counterparts. Moreover, there was no indication which suggested that Indian-Americans exhibit more externality with regard to locus of control than Caucasian-Americans. Finally, Indian-American subjects did not appear to exhibit cognitive and affective behaviors which are congruent with an Indian belief system that is more traditional than that which exists in contemporary India.

*Additional Analyses*Mann-Whitney U Test

Histograms indicating the distribution of scores on the Rotter Locus of Control Scale and the likert scale, which appeared to be normal distributions, are exhibited in Appendix J. However, the distribution of scores on the Thematic Apperception Test was of special interest in this study. Figures 1, 2, and 3 depict histograms indicating the distribution of these scores. The distributions of scores for each cultural group and the total population are displayed in the following pages.

Figure 1  
Distribution of Scores on TAT  
Within Caucasian-American Group

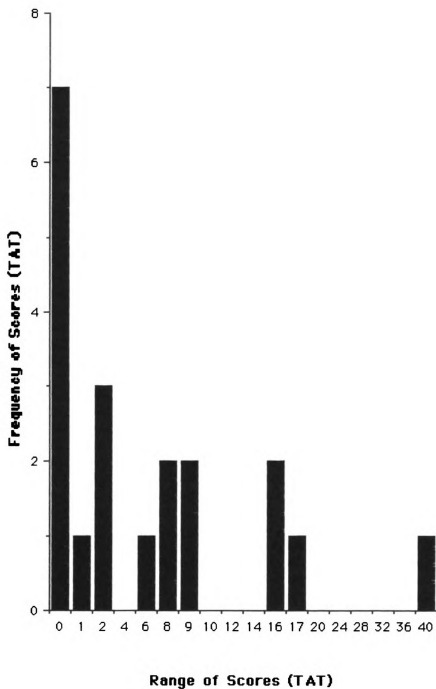


Figure 2  
Distribution of Scores on TAT  
Within Indian-American Group

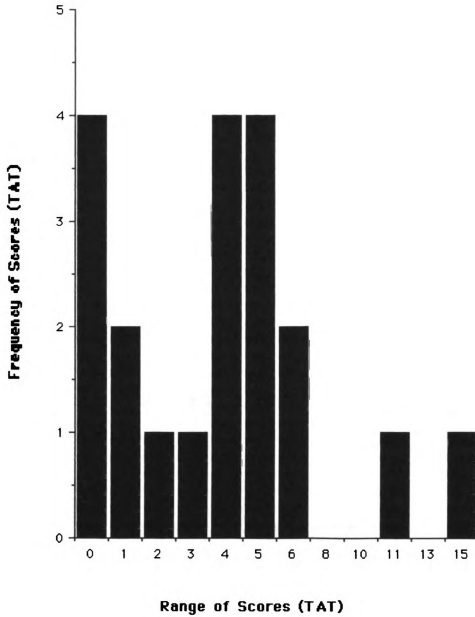
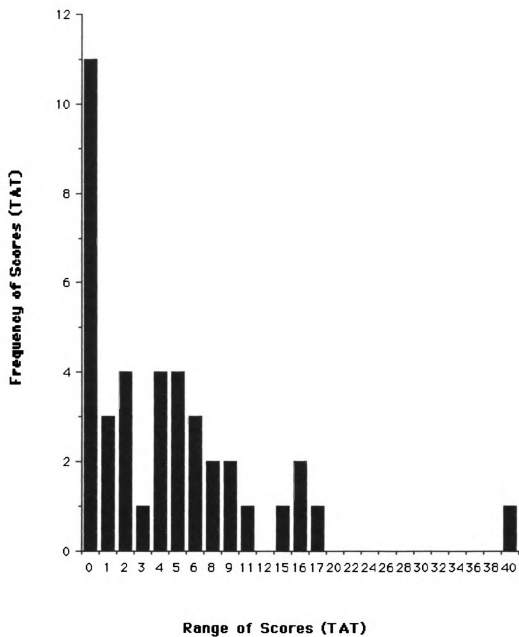


Figure 3  
Distribution of Scores on TAT  
Within Total Sample



As indicated by the skewed distribution of scores in Figures 1-3, the assumption of normality made in conducting the t-tests to examine the mean differences of TAT scores between the Indian-American and Caucasian-American groups was questioned. Consequently, a non-parametric analysis of the data, specifically the Mann Whitney U test, was conducted. This test was not significant ( $U=192.5$ ,  $p>.05$ ), and produced the same outcome as the parametric tests discussed above. An elaboration of the results of the Mann Whitney U can be found in Appendix K.

#### Spearman's Rho Correlations

Since the distribution of scores on the Thematic Apperception test was notably skewed as indicated by the histograms in Figures 1, 2, and 3, it was necessary to conduct further correlational analyses in order to examine the linear relationship between the three measures (Rotter's Internal-External Scale, TAT, likert scale), under conditions in which the distributional assumption of normality was not invoked. Tables 7, 8, and 9 indicate a series of Spearman's rho correlations ( $r_s$ ) among the results of the Rotter Locus of Control Scale, likert scale and TAT, both within each of the cultural groups as well as within the total sample of students.



**Table 7**

**Spearman's Rho Correlational Analyses of TAT, Likert Scale,  
and Rotter's I-E Locus of Control Scale Within Caucasian-  
American Group**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	-.32	--
Likert	-.08	.27

---

\* $p < .05$

**Table 8**

**Spearman's Rho Correlational Analyses of TAT, Likert Scale,  
and Rotter's I-E Locus of Control Scale Within Indian-  
American Group**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	.01	--
Likert	-.46*	-.03

---

\* $p < .05$

**Table 9**

**Spearman's Rho Correlational Analyses of TAT, Likert Scale,  
and Rotter's I-E Locus of Control Scale Within Total Sample**

---

	TAT	Rotter LOC
	<hr/>	
Rotter LOC	-.17	--
Likert	-.17	-.04

---

\* $p < .05$

These results indicate no significant relationship between guilt and locus of control in either cultural group. This analysis again indicated a possible trend for an inverse relationship ( $r_s = -.32$ ) between an internal-external locus of control orientation and guilt as measured by the TAT, within the Caucasian-American cultural group, indicating a possible relationship between lower scores on the Rotter Internal-External Scale (higher internality) and higher levels of guilt. Similar to the findings of the previous analysis, the possibility of this trend existing within the Indian-American group appears to be less likely ( $r_s = .01$ ). These findings again failed to corroborate the hypothesis that a value of internal control is associated with higher levels of guilt or self-blame. Furthermore, an inverse relationship between

guilt as measured by the likert scale and that which was measured by the Thematic Apperception Test was found to be significant in the Indian-American group ( $r_s = -.46$ ,  $p = .02$ ).

## DISCUSSION

The author's prediction that Indian-American subjects would exhibit lower levels of guilt and increased externality with respect to locus of control when compared to their Western counterparts was not corroborated in the present study, as measured by the Thematic Apperception Test, a likert scale of guilt, and the Rotter Locus of Control Scale. Indian-American subjects did not appear to exhibit cognitive and affective behaviors which are congruent with an Indian belief system that is more traditional than the belief system prevalent in contemporary India. These findings appear to be inconsistent with results reported in previous research studies which indicate higher levels of guilt in Western subjects when compared to Eastern counterparts (Rao, 1973; Sethi, Nathawat, & Gupta, 1973; Gada, 1982), and those which suggest that Western subjects exhibit locus of control orientations which are more internal than Eastern subjects (Hsieh, Shybut, & Lotsof, 1969; Mathew, 1985; Kumar, 1986; Sinha, Singh, & Shukla, 1986).

The failure to demonstrate a positive relationship between internal locus of control and higher levels of guilt within a cross-cultural context is inconsistent with various cognitive theories of guilt as presented by Lazarus & Fay

(1975), Garcia & Blythe (1977), Ambramson, Seligman, & Teasdale (1978), Beck, Rush, Shaw, & Emery (1979), Murphy (1980), and Lindsay-Hartz (1984), which emphasize the relationship between cognition and affect in depressed individuals. This theoretical framework provides, in the Lakatosian perspective (Dar, 1987; Gholson & Barker, 1985; Serlin and Lapsley, 1985; Meehl, 1978), the hard core commitments of this study. According to Lakatos (1978), the "hard core" of a particular theory is guarded from refutation with a "protective belt" of auxilliary theories. Cronbach and Meehl (1973) coined the term "nomological network" to describe the system of lawlike relationships which create links between two or more theoretical entities and between theoretical entities and their observable indices. Meehl (1978, p.813) suggested that although core theoretical ideas may be sound, these lawlike relationships in "soft" psychology actually signify "correlations, tendencies, statistical clusterings, increments of probabilities, and altered stochastic dispositions." Furthermore, according to Lakatos (1978), auxilliary theories should be outlined in advance so that an intimate connection between auxilliary theories and the core theory can be maintained, and consequently a challenge to the auxilliary theories can necessitate a revision of the core theory. However, Meehl (1978) indicated a critical distinction between the hard sciences and "soft" psychology in that there is no intimate connection between the auxilliary theories and the

substantive theory in the social sciences. According to Dar (1987, p.149), in the field of psychology, ad hoc challenges to the auxilliary theories are actually "afterthoughts that do not have any real consequences for the substantive theory." Hence, the lack of justification needed to refute the core theory (Lakatos, 1978; Meehl, 1978; Dar, 1987) necessitates the specification of the more subtle auxilliary theories, as well as the separation of these specific auxilliary theories from various experimental conditions.

The various auxilliary hypotheses which are included in the present investigation are : 1) The narratives read by the subjects induced feelings of guilt or self-blame; 2) The subjects within each cultural group embodied the beliefs of their respective cultural backgrounds; 3) The three cards taken from the Thematic Apperception Test are sensitive measures of guilt and accurately reflect guilt feelings experienced by the subjects; 4) The likert scale adequately measured guilt feelings experienced by the subjects; 5) The Rotter Internal-External Locus of Control Scale adequately represented subjects' locus of control orientations. The various experimental conditions which were necessary in order to test the core theory included the following: 1) There were no distractions while the subjects read the guilt-inducing narratives and wrote responses to the TAT cards; 2) The subjects were motivated to engage in the various tasks; 3) The subjects were not cognizant of the purpose of the guilt-induction task as indicated by their responses to the

debriefing questions; 4) The subjects read the narratives and wrote responses to the TAT cards without the presence of the experimenter.

The dependent measures of guilt may be especially problematic in this study. The likert scale and the scoring system for the Thematic Apperception Test which were developed for the purposes of the present investigation may not adequately reflect the criteria for guilt as defined by cognitive theories of guilt, specifically that guilt is a situation specific phenomenon which results from an individual's perception of having engaged in an action which is thought to be wrong and his or her assumption of responsibility for this action. According to Meehl (1978), measurement tools in "soft" psychology are not adequately integrated into the "core" or substantive theory. Furthermore, it may be that the units of measurement employed in the 6-point TAT scoring system did not accurately capture observable expressions of guilt and discern differences in the degree of guilt. Meehl (1978, p.808) pointed out the difficulty of "slicing up the raw behavioral flux into meaningful intervals identified by causally relevant attributes on the response side."

Although prediction 2 that Indian-Americans exhibit more externality (LOC) than Caucasian-Americans failed, the mean locus of control scores of the two groups did fall in the predicted direction. It is also important to note that although prediction 1 that Indian-Americans exhibit lower

levels of guilt than Caucasian-Americans failed, the means on the TAT responses occurred in the predicted direction, while the means on the likert scale occurred in the opposite direction. It is possible that the TAT scoring system and the likert scale measured different constructs of guilt, consequently limiting the testability of the substantive theory. In addition, the Thematic Apperception Test and the likert scale have been designed from a Western standpoint, and consequently may have tapped constructs of guilt that are qualitatively different from those defined by the Indian culture. Correlational analyses revealed a significant relationship ( $r_s = -.46$ ) between guilt as measured by the likert scale and guilt as measured by the Thematic Apperception Test in the Indian-American group only. This inverse relationship was not found in the Caucasian-American group. However, correlational analyses revealed the possibility of a trend for an inverse relationship ( $r = -.33$ ,  $r_s = -.32$ ) between an locus of control orientation and guilt as measured by the TAT, within the Caucasian-American student group. These divergent findings further support the possibility that the three cards from the Thematic Apperception Test and the likert scale measured two different constructs of guilt.

The assumption that each of the cultural groups represented beliefs of their respective cultural backgrounds (listed above) may also lead to limitations in the testability of the core theory. The students who comprised



the Indian-American group primarily have resided in the United States for at least 9 years. However, the backgrounds of these individuals vary with regard to the number of years (range of 9 - 20 years) of exposure to Western culture and their individual levels of acculturation, which was not studied in the present investigation. Hence, it may be that the assumption that these subjects represent a particular Indian belief system may have been too broad.

It is worthwhile to further examine Rotter's Internal-External Locus of Control Scale, as well. Although normative data for various populations, including university students, on the LOC scale has been reported by several researchers (Lefcourt, 1983; Cellini & Kantorowski, 1982; Phares, 1976; Rotter, 1966; Gore & Rotter, 1963), a critical point differentiating internality from externality has not been formulated for the scale. This leads to the question of whether or not a continuous measure of locus of control, such as the I-E Scale, can adequately capture the dichotomy of internality and externality. Researchers in the past have determined this distinction through comparisons among group mean scores on the LOC scale (Holmstrom et al., 1991; Mills & Taricone, 1991; McCanne & Lotsof, 1987; Moore & Paolillo, 1984). However, the controversy regarding the ability of a continuous measure to capture qualitative states (i.e. locus of control) through the creation of artificial dichotomies is a psychometric problem which has yet to be resolved.

Goodenough, Oltman, and Cox (1987) examined a relevant issue of the impact of individual differences in orientation perception in 199 subjects who were given several perceptual tests, including the rod-and-frame test which is used to measure the dimension of field-dependence. Individual differences in orientation perception were found to be related to various tests of spatial-visual abilities, which may have been a result of an orientation constancy component of the rod-and-frame test. In the rod-and-frame test, visual cues are given from a tilted square frame, and individuals' perceptual differences are measured by asking observers to adjust a rod to a setting that appears to be vertical (Witkin & Asch, 1948; as cited in Goodenough, Oltman, & Cox, 1987). Rotter's measure, on the other hand, fails to overlap with dichotomous measures of individuals' perceptions, such as the rod-and-frame test, in that it attempts to capture a qualitative state, namely an orientation of internal or external locus of control, through a continuous scale.

Furthermore, as reported by Phares (1976, p.45), Rotter's I-E scale scores "vary significantly from study to study, from population to population, and from one point in time to another." For instance, Rotter (1966) indicated mean I-E scores for university populations ranging from 7.73 to 9.22. According to Phares (1976), these means have shifted in the external direction 2 to 4 points across a period of ten years. Schneider (1971) found a mean LOC score of 7.42 in 1966, and 10.38 in 1970 for University of Oklahoma

students. Cellini and Kantorowski (1982) reported a shift of LOC scores toward the external direction in a sample of 298 students from a similar population utilized by Rotter at Ohio State University. Their study indicated mean scores of 10.87 for males and 11.70 for females, while Rotter's 1966 study indicated mean scores of 8.15 for males and 8.42 for females. It is likely that these variations in normative data on the Rotter I-E Scale will present interpretational limitations in research. Consequently, it is important to note that the stability of the internal-external scores found in the present study may be subject to the influence of various relevant factors, including societal changes.

These difficulties in interpreting I-E scale scores are relevant to Meehl's (1978) discussion of "context-dependent stochastologicals." Meehl (1978, p. 814) pointed out that the testability of the substantive theory in a research program is limited by "context dependent stochastologicals" or the observed statistical dependencies, such as percentages, crude curve fits, correlations, significance tests, and distribution overlaps, which are "dependent on the institution-cum-population setting in which the measurements were obtained." He stated that in "soft" psychology, researchers cannot compute expected numerical changes in stochastologicals when studying various populations or settings, and that they may not even be able to rationally predict the direction of these changes. Furthermore, according to Meehl (1978), there is very little one can

quantitatively conclude with sufficient confidence to claim an unexpected shift in a stochastic dependency as a strong discreditor of a hypothesis. The context-dependent stochastologicals of the social sciences vary from the probability concepts and statistical distributions of classical and quantum physics in that the social science researcher does not know the complete list of contextual influences, the function form of context dependency for influences that can be identified, the numerical values of parameters in the function forms that are known, and the values of the context variables (Meehl, 1978).

Cronbach (1975) also indicated that results obtained under disparate conditions cannot be linked since the experimental conditions and a person's characteristics influence outcomes. According to Cronbach (1975, p.121), although "the aim of social and behavioral science has been to establish lawful relations comparable to those of the traditional natural sciences," it is important to consider that most effects found in social science studies are interactive in nature. More specifically, Cronbach suggested that time is a significant source of interaction in empirical testing, as indicated by his study of students' aptitude scores across various time intervals. He stated that experiments in psychology yield outcomes which describe relationships between variables specific to a particular time period and certain contextual factors. It then becomes essential to consider that empirical relations exist in a

constant state of flux. Atkinson (1974, p.408; as cited in Cronbach, 1975) stated that when a notable relation is found between personality variables, it indicates "the modal personality of a particular society at a particular time in history." Cronbach (1975) further contended that social scientists cannot rely on the positivistic approach, which attempts to fix experimental conditions in order to reach generalizations, and assumes that processes are steady and can be separated into independent systems. Systematic inquiry was conceptualized by Cronbach (1975) to have two reasonable aspirations, including assessing local events accurately, and developing explanatory concepts.

It is necessary to outline some other limitations of the Internal-External Scale which were recognized by Rotter (1975). Although the development of the I-E scale intended to construct an instrument with a low correlation with the Marlowe-Crowne Social Desirability Scale, it is nonetheless important to note that the relationship between the I-E scale and social desirability is subject to change under varying testing conditions. The forced choice format of the scale is limited by its dependence on "conscious awareness" of the subjects (Rotter, 1975, p. 62). Rotter (1975) also pointed out the problematic use of the median split to obtain groups called "internals" and "externals." He stated that the mean for college students had risen from a score of 8 to a score between 10 and 12 since the mid-1960s (Rotter, 1975), again implicating interpretational difficulties of the I-E scale.

A different issue addresses whether or not locus of control should be studied as a unidimensional or a multi-dimensional construct. It may be worthwhile to examine this construct through both perspectives, utilizing subscales within the I-E scale as well as a broad measure of locus of control in order to ascertain "the true structure of the construct" (Rotter, 1975). Levenson (1974) attempted to separate Rotter's conceptually unidimensional scale into three dimensions, including personal, powerful others, and chance control. These three scales are intended "to measure belief in chance expectancies as separate from a powerful others orientation" (Levenson, 1974, p.377), in order to address the broad definition of externality originally formulated by Rotter. It is important to mention at this point that Rotter also encouraged the use of caution in interpreting the meaning of externality on the I-E scale. Specifically, he stated that it is highly possible that externally oriented individuals may behave in various situations, particularly those involving competitive achievement skills, similar to the way internally oriented people are expected to behave. In other words, the impact of individual variations in locus of control orientation across situations should not be overlooked.

The histograms depicted in figures 1, 2, and 3 indicate notable skewed distribution of scores on the Thematic Apperception Test. This finding may be explained with respect to impression management, which may have played a

role in determining subjects' responses to the TAT.

Impression management or self-presentation is defined as a phenomenon which involves "expressing oneself and behaving in ways designed either to create a favorable impression or an impression that corresponds to one's ideals" (Myers, 1990, p.53). Furthermore, individuals may feign attitudes which they do not hold in order to appear consistent, according to self-presentation theory. According to Baumeister (1982), the desire to be one's ideal self gives rise to motivations which affect both the "private self" and the "public self." In other words, it leads individuals to attempt to be perceived as congruent to their ideal self-images both by themselves and by an audience. Leary and Kowalski (1990) suggested that when a person is dependent on others for valued outcomes, such as authority figures, the impressions directed to them are perceived as more important and the person becomes more motivated to engage in impression management. Schlenker (1986, p.23) utilized the term "self-identification" to describe "the process, means, or result of showing oneself to be a particular type of person, thereby specifying one's identity." He suggested that self-identification always occurs in a context which reflects the interaction of the individual, the situation, and one or more salient audiences for the activity.

In light of self-presentation theory, it is possible that the subjects in the present study wished to present themselves in a favorable light in order to maintain an

impression which was congruent with their ideals. Subjects may have desired to convey a positive impression of their affective experiences in a situation which involved their interactions with a figure of authority (i.e. experimenter or author) whom they may have perceived as evaluators of their written TAT responses. These characteristics of subjects may have interacted with the dependent variable of guilt in significant ways. Appendix L lists several stories written in response to the TAT picture cards by subjects who scored zero levels of guilt. Although past research has indicated the impact of impression management on cognitive assessment techniques (Schwarz & Garamoni, 1986), it is important to note the possibility that projective techniques, such as the TAT, may be susceptible to this phenomenon, as well.

The generalizability of these findings may be limited in a number of ways, as well. First, the populations studied were recruited only from a university setting. Secondly, no screening measures were utilized to check whether or not subjects experienced any depressive symptomology. It was assumed that the subjects were non-depressed individuals. It may be possible that the findings of the present study are limited to non-depressed populations, although the distinction between non-depressed and depressed participants was not examined.

Several measures of action can be taken in the future to strengthen the methodology used in the present study. It may be worthwhile to compare a group of Indian subjects who either



live in India or who have recently immigrated to the United States (within a 1-2 year period) with the two types of cultural groups examined in this study. Furthermore, a measure of acculturation may be conducive to a closer investigation of the impact of cultural identification on an individual's affect and cognitions. The addition of a scale measuring the level of depression to the protocol of the study may yield more generalizable results, as well as a closer examination of behaviors which distinguish depressed individuals from non-depressed individuals. Finally, it may be useful to add a measure of subjects' impression management in order to examine its relationship with measures of guilt, such as the Thematic Apperception Test.

The construct of guilt may be perceived differently across cultural backgrounds, and hence should be examined more thoroughly in order to ascertain more accurate definitions of guilt in both the Indian-American sub-culture and Caucasian-American sub-culture. A more specific differentiation of the construct of guilt as defined by both the Indian culture and Western culture would have a fruitful impact on the development of scoring scales of guilt. It may be essential to develop scales which measure similar conceptualizations of guilt across cultures in order to validly test the hypothesis that an internal locus of control orientation is associated with higher levels of guilt. However, it may be rewarding to study this hypothesized relationship between locus of control and guilt, within a

particular cultural group, in the case that such a pervasive definition of guilt is not ascertained.

In conclusion, the findings of the present investigation warrant further research dealing with cross-cultural aspects of cognition and affect. Specifically, future research should examine the developmental processes involved in the formation of guilt and self-blame, as well as attributional thinking. According to Meehl (1978, p.809), "most of the attributes studied by soft-field psychologists are influenced by polygenic systems." Several factors including mediating cognitive processes, environmental influences and ideographic differences may contribute to the development of depressive symptoms, one of which may be guilt. It is also important to consider acculturation processes of minority populations in examining these variables in a cultural context.

## **APPENDICES**

## **APPENDIX A**

## APPENDIX A

### Rotter's Internal-External Locus of Control Scale (Instructions)

Please complete the following questionnaire. Try to answer these items as carefully and honestly as you can. Do not spend too much time on any one item, but be sure to find an answer for every choice. Circle the letter a or b whichever you choose as the more true statement. In some instances you may discover that you believe both statements or that you believe neither one to be true. In such cases, be sure to select the one you more strongly believe to be true as far as you are concerned. Also, try to answer each item independently when making your choice; do not be influenced by your previous choices. (Hsieh, Shybut, & Lotsof, 1969).

## APPENDIX A

## Rotter's Internal-External Locus of Control Scale

1.   a.   Children get into trouble because their parents punish them too much.  
      b.   The trouble with most children nowadays is that their parents are too easy with them.
2.   a.   Many of the unhappy things in people's lives are partly due to bad luck.  
      b.   People's misfortunes result from the mistakes they made.
3.   a.   One of the major reasons why we have wars is because people don't take enough interest in politics.  
      b.   There will always be wars, no matter how hard people try to prevent them.
4.   a.   In the long run people get the respect they deserve in this world.  
      b.   Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5.   a.   The idea that teachers are unfair to students is nonsense.  
      b.   Most students don't realize the extent to which their grades are influenced by accidental happenings.
6.   a.   Without the right breaks one cannot be an effective leader.  
      b.   Capable people who fail to become leaders have not taken advantage of their opportunities.

7.
  - a. No matter how hard you try some people just don't like you.
  - b. People who can't get others to like them don't understand how to get along with others.
8.
  - a. Heredity plays the major role in determining one's personality.
  - b. It is one's experiences in life which determine what one is like.
9.
  - a. I have often found that what is going to happen will happen.
  - b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10.
  - a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
  - b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11.
  - a. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
  - b. Getting a good job depends mainly on being in the right place at the right time.
12.
  - a. The average citizen can have an influence in government decisions.
  - b. This world is run by the few people in power, and there is not much the little guy can do about it.
13.
  - a. When I make plans, I am almost certain that I can make them work.
  - b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14.
  - a. There are certain people who are just no good.
  - b. There is some good in everybody.
15.
  - a. In my case getting what I want has little or nothing to do with luck.
  - b. Many times we might just as well decide what to do by flipping a coin.
16.
  - a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
  - b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
17.
  - a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
  - b. By taking an active part in political and social affairs the people can control world events.
18.
  - a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
  - b. There really is no such thing as "luck."
19.
  - a. One should always be willing to admit mistakes.
  - b. It is usually best to cover up one's mistakes.
20.
  - a. It is hard to know whether or not a person really likes you.
  - b. How many friends you have depends on how nice a person you are.
21.
  - a. In the long run the bad things that happen to us are balanced by the good ones.
  - b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.



- 22. a. With enough effort we can wipe out political corruption.  
b. It is difficult for people to have much control over the things politicians do in office.
- 23. a. Sometimes I can't understand how teachers arrive at the grades they give.  
b. There is a direct connection between how hard I study and the grades I get.
- 24. a. A good leader expects people to decide for themselves what they should do.  
b. A good leader makes it clear to everybody what their jobs are.
- 25. a. Many times I feel that I have little influence over the things that happen to me.  
b. It is impossible for me to believe that chance or luck plays an important role in my life.
- 26. a. People are lonely because they don't try to be friendly.  
b. There's not much use in trying too hard to please people; if they like you, they like you.
- 27. a. There is too much emphasis on athletics in high school.  
b. Team sports are an excellent way to build character.
- 28. a. What happens to me is my own doing.  
b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29.
  - a. Most of the time I can't understand why politicians behave the way they do.
  - b. In the long run people are responsible for bad government on a national as well as on a local level.

## **APPENDIX B**

## APPENDIX B

Narratives  
(Instructions)

You will be presented with a series of short stories. Read each one of these stories aloud to yourself. As you read each story, try to imagine yourself experiencing the events described in each story. When you have finished reading all of the stories aloud to yourself, please let the investigator know that you have finished.

## APPENDIX B

## Narratives

Yesterday, I was assigned a research paper on World War II for one of my classes. I went to the library last night to look up a number of books that would be useful in writing my paper. After several hours, I found some useful information on the attack of Pearl Harbor. However, this information was not sufficient for writing my paper. I decided that I am going to begin writing my paper this weekend, anyway. I should be able to finish on time, and get a decent grade in the class.

I have been engaged to marry someone since two years ago. We've been best friends since high school. I remember when I had run away from home in tenth grade, my fiancé(e) stuck by me and helped me work out my problems with my parents. My fiancé(e) is now helping me pay for my college education, by working extra hours at a bookstore. I've always felt very close to this person ever since we've met. However, about two months ago, I met someone else to whom I was attracted, in one of my classes. I had kept my romantic affair with this other person a secret from my fiancé(e), until my fiancé(e) caught me embracing this other person in my apartment yesterday.

One of my closest friends moved away to a different state about a year ago. We had been friends since the fifth grade. She and I used to spend many weekends together at the beach and sometimes at the park. Since she's moved away, we've written to each other quite often, and spoke on the phone at least once a week. When my mother first told me that this friend had committed suicide, I was speechless. I instantly ran into my room, and searched for the letters which I had received from my friend during the past two weeks. I had failed to reply to these letters. It could be that she was trying to tell me something or reach out for help, but I wasn't there for her.

It was so easy to do it. The professor walked out of the exam room, giving me the perfect opportunity to look at my friend's exam. I knew I could count on my friend for the right answers. He always prepared really well for tests, and I knew that he stayed up all night to study for this particular test. I, on the other hand, had not studied very much at all. I was a little distracted the night before the test. Some of my other friends came over, and we decided to go to the park and watch the stars for a while. Then, I came back home and watched television for a couple of hours. I decided that I was too tired to study for my test. So, I went to bed. I guess I knew that I could always count on my friend. I didn't think I would get caught, and indeed I didn't. However, my friend who was trying to signal me to stop looking at his answers was accused of cheating, and is now suspended from the university.

## **APPENDIX C**

## APPENDIX C

Likert Scale  
(Instructions)

Keeping in mind the last three narratives which you have read, circle the number response below each of the following statements which best describes your feelings right now. Rate your responses according to the following scales:

1 = strongly disagree; 2 = slightly disagree;  
3 = not sure; 4 = slightly agree; 5 = strongly  
agree



## APPENDIX C

## Likert Scale

1. I don't think that I am to blame for what happened to my friend in each of the stories.  
1                      2                      3                      4                      5
2. I feel guilty about what happened to my friend.  
1                      2                      3                      4                      5
3. I am a good friend to others.  
1                      2                      3                      4                      5
4. I think that whatever happened to my friend in each story was meant to happen.  
1                      2                      3                      4                      5
5. I could have stopped my friend's misfortune in some way.  
1                      2                      3                      4                      5
6. I think that I've dealt with my friend's problems in the best way that I possibly could.  
1                      2                      3                      4                      5
7. I think that my friend blames me for what happened to him/her.  
1                      2                      3                      4                      5
8. I feel as though everyone is placing the blame on me for my friend's misfortune.  
1                      2                      3                      4                      5
9. The way I treated my friend is justified.  
1                      2                      3                      4                      5
10. My friend's misfortunes were brought about by his/her own mistakes.  
1                      2                      3                      4                      5

## **APPENDIX D**

## APPENDIX D

## Request for Participation

I am a graduate student in clinical psychology at MSU, and currently running a cross-cultural study of perception and social judgement. My interest in cross-cultural research stems from both my own personal background as an Indian-American individual and from my interest in clinical and social psychology. I am interested in recruiting volunteer participants for my study from various organizations at MSU, that have an interest in a particular culture. I will be recruiting participants from organizations such as the Italian Club, French Club, Spanish Club, Greek Association, German Club, India Club, and Coalition of Indian Undergraduate Students. I would like to invite undergraduate students involved in such organizations which emphasize language and culture to participate in this study. I think that it will benefit our understanding of various cultures, in terms of social perception and judgement, and provide an opportunity for you to become involved in cultural research.

The study itself will be conducted in 47 Snyder Hall at MSU, and takes approximately 45 minutes to complete. The study involves filling out questionnaires and reading some short narratives. I will be providing written feedback regarding the results of this study to the participants via mail. If you are interested, please give me a call at 337-0938 and/or write your name, phone number, and available times on the sheet which will be passed out. If you decide that you would like to participate, one of my research assistants will call you and set up a time to meet with you. The time that you set up is flexible depending on your schedule. You can participate in this study during the daytime, evenings, or weekends. THANK YOU VERY MUCH.

Usha Tummala

## **APPENDIX E**

## APPENDIX E

## Feedback to Participants

FEEDBACK FROM CROSS-CULTURAL STUDY

This letter concerns the findings of the cross-cultural study conducted by Usha Tummala. This study involved the participation of 40 college students from various ethnic and cultural organizations both at Michigan State University and the University of Michigan (Ann Arbor). These organizations included Viva Italia, Nossa Turma, German Club, French Club, Spanish Club, Coalition of Indian Undergraduate Students, and Indian-American Students Association. The actual experiment consisted of completing questionnaires concerning social perception and guilt, reading several narratives or short stories, and writing stories about picture cards. The purpose of this study was to investigate the relationship between guilt or self-blame and attribution, which is a term used to indicate what individuals perceive as the cause of surrounding events (internal vs. external factors). Another aim of the study was to examine whether cultural differences exist with regard to guilt and attribution between Eastern (Indian-American) and Western groups of students, who have resided in the United States or another Western nation at least since the age of 12.

Previous research in clinical psychology has indicated that Eastern cultural groups (Chinese, Indian, Japanese) tend to exhibit lower levels of guilt or self-blame and a more external attribution style than their Western counterparts. However, the results of the present study indicate no significant differences in guilt or attribution between the two cultural groups. It is possible that acculturation issues may have influenced the results of this study in that the Eastern group of individuals consisted of Indian-Americans who have resided in the United States for a number of years with their families. I hope to continue my research in this particular area in the future, in order to further examine acculturation and social perception issues.

I would like to convey my deep gratitude for your interest and participation in this study. I also appreciate your investment of time and effort which has made this study possible. If you have any questions regarding this study, please contact me at (517) 355-9564.

Sincerely,  
Usha Tummala  
Michigan State University

## **APPENDIX F**

## APPENDIX F

## Background Information Form

**Please complete the following background information.**

1. Your age: \_\_\_\_\_
2. Sex (circle one):    M       F
3. Year of college (circle one):  
    Freshman   Sophomore   Junior   Senior
4. Racial/Ethnic Background: \_\_\_\_\_
5. Were you born in the United States?   Yes    No  
    (circle one)
6. If your answer to question 5 is "no" how long have you  
    resided in the United States? \_\_\_\_\_
7. Father's occupation \_\_\_\_\_
8. Mother's occupation \_\_\_\_\_

## **APPENDIX G**



## APPENDIX G

## Instructions for Thematic Apperception Test

You will be given a set of 3 picture cards. Please look at each card, one at a time, and write down on the blank sheet(s) of paper what is going on in each picture. Write down what the characters might be feeling and thinking, what led up to it, and what the outcome might be. In other words, write down a good story. Write down your thoughts as they come to your mind. Take your time. (Karon, 1981)

## **APPENDIX H**

## APPENDIX H

## Scoring System for Thematic Apperception Test

**0 :** Score 0 if there are no expressions of guilt, remorse, self-blame, etc. anywhere in the story.

**1:** Score 1 for each word that is one of the following equivalents of guilt in our speech lexicon, or for each expression (sentence, phrase, etc.) which conveys the meaning of one of the following words :

- attribute; attribution; attributable
- liable
- fault
- accountable

**2:** Score 2 for each word that is any of the following speech equivalents of guilt, or for each expression (sentence, phrase, etc.) which conveys the meaning of one of the following words:

- regret
- chargeable
- accuse
- responsible

**3:** Score 3 for each word that is any of the following equivalents of guilt, or for each expression (sentence, phrase, etc.) which conveys the meaning of one of the following words :

- reprehensible
- incriminate (d)
- culpable

4: Score 4 for each word that is any of the following equivalents of guilt, or for each expression (sentence, phrase, etc.) which conveys the meaning of one of the following words :

- conscience-stricken
- punishable
- self-reproach

5: Score 5 for each word that is "guilt" itself or any of the following equivalents, or for each expression (sentence, phrase, etc.) which conveys the meaning of one of the following words :

- guilty; guilt-ridden; guiltily; guiltiness
- blame; self-blame; self-blaming; blameworthy; blameable
- repentant
- remorseful; remorse
- condemn(ed)

These speech equivalents for "guilt" can be found in Roget's Thesaurus (1990), Roget's College Thesaurus (1985), and Merriam Webster's Ninth New Collegiate Dictionary (1990).

## **APPENDIX I**

## APPENDIX I

Computation of Critical Score for Rotter's Internal-External  
LOC Scale

Guilford's (1950) formula for calculating critical score for an artificial dichotomy:

$$X_C = M_X + (zy/pq) (\text{variance}/M_p - M_q)$$

where  $M_X$  = mean of the entire distribution, for those in the two categories combined.

$p$  = proportion of the total population in the category having the higher mean score on  $X$ .

$$q = 1-p.$$

$y$  = ordinate in the unit normal distribution at the point of division of the area under the normal curve with  $p$  proportion above it.

$z$  = standard measure of the point at which the division just referred to occurs.

$M_p$  = mean of  $X$  values for category higher on  $X$

$M_q$  = mean of  $X$  values for category lower on  $X$ .

variance = variance in the total distribution of  $X$ .

Computation of critical score in present study:

$$X_C = 10.2 + ((.00) (.3989) / (.5) (.5)) (17.3 / (11 - 9.45))$$

$$X_C = 10.2$$

## **APPENDIX J**

**Figure 4**  
**Distribution of Scores on Rotter's I-E Scale**  
**Within Caucasian-American Group**

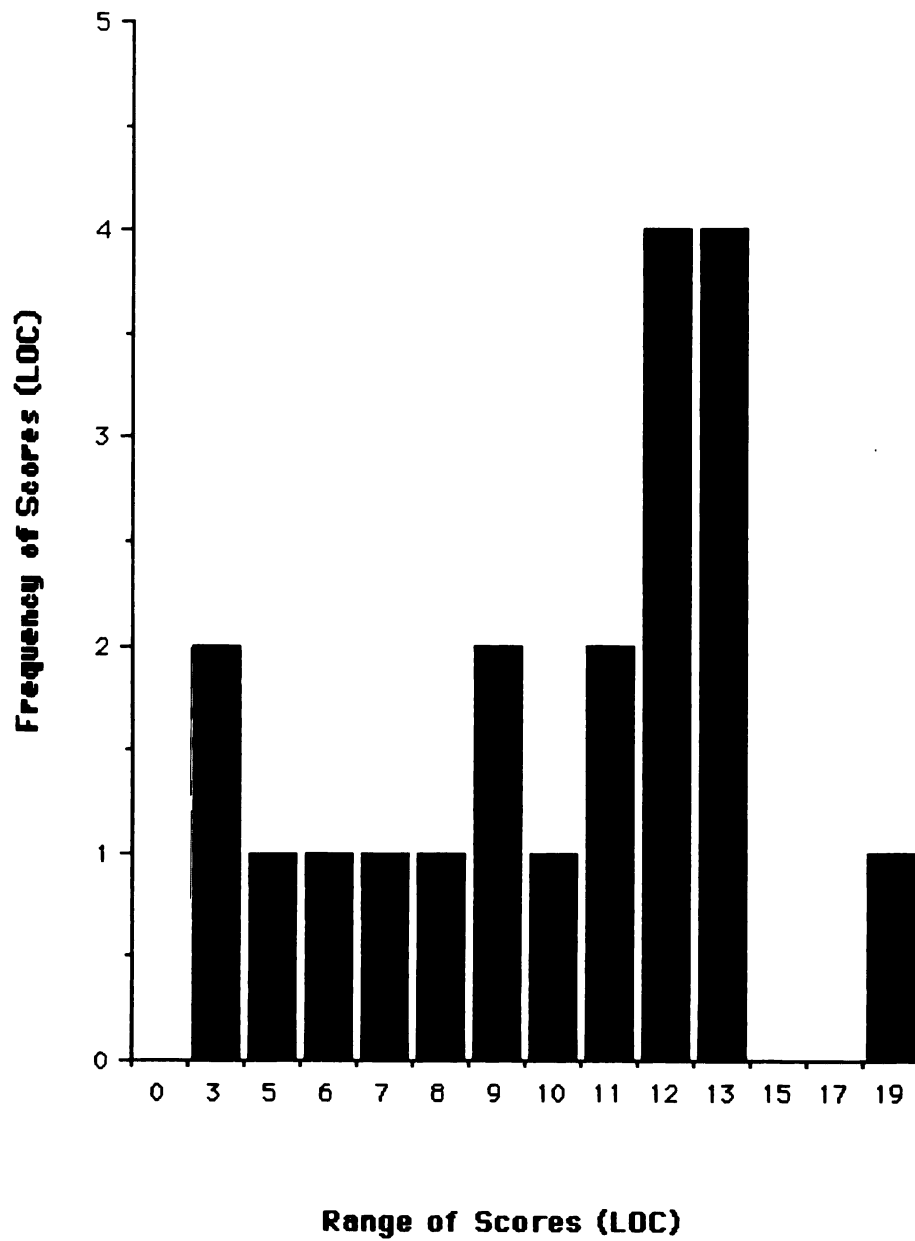




Figure 5  
Distribution of Scores on Rotter's I-E Scale  
Within Indian-American Group

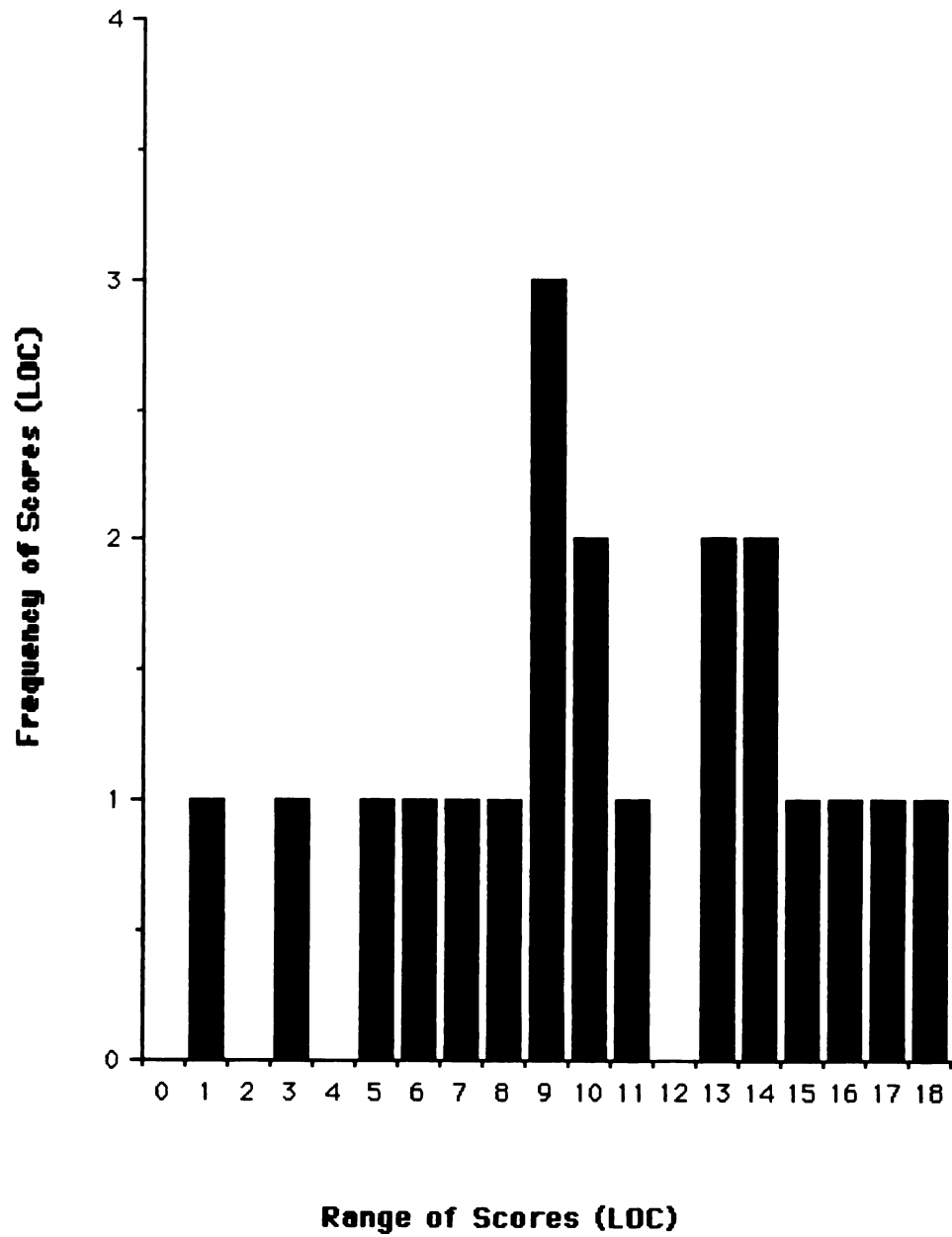


Figure 6  
Distribution of Scores on Rotter's I-E Scale  
Within Total Sample

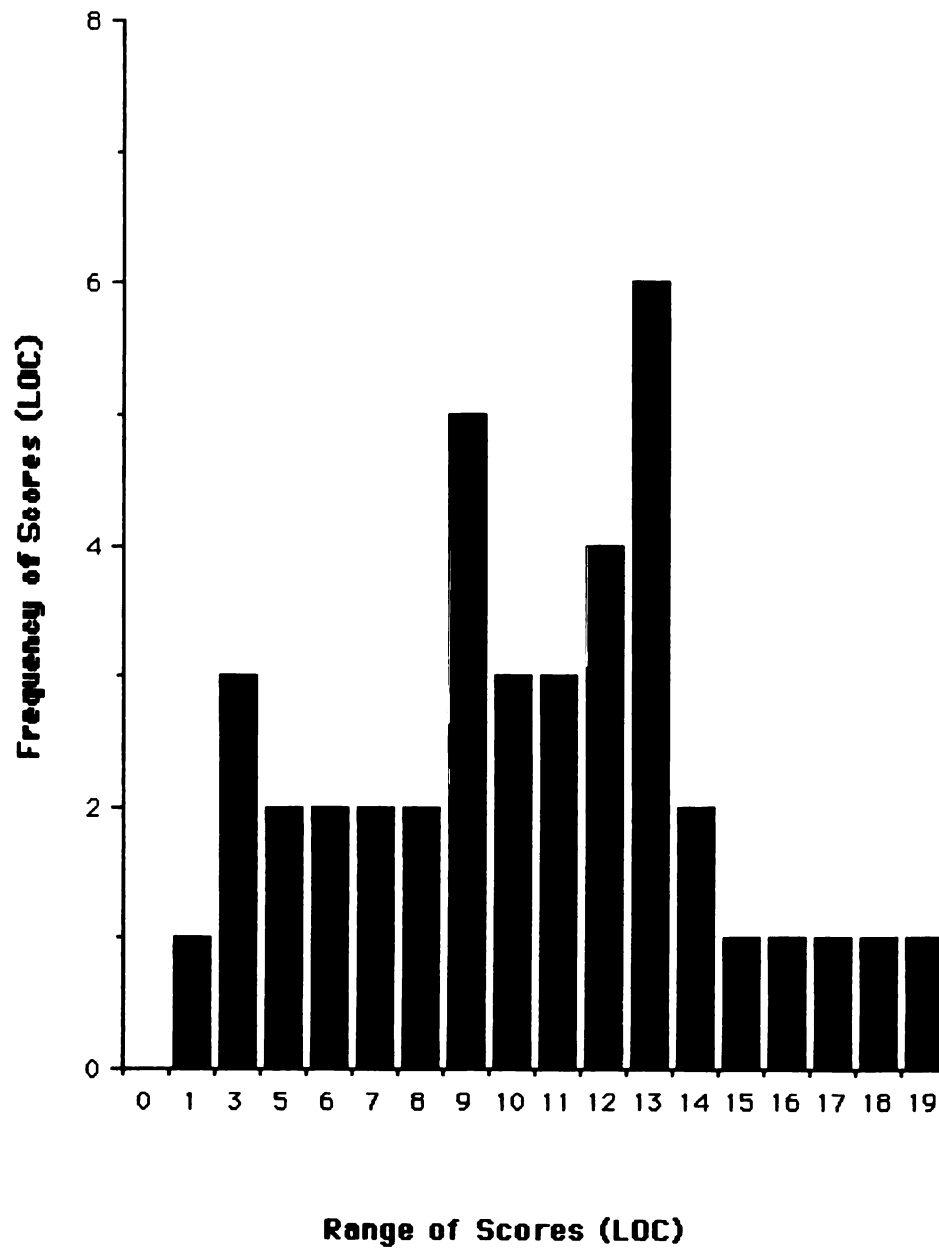


Figure 7  
Distribution of Scores on Likert Scale  
Within Caucasian-American Group

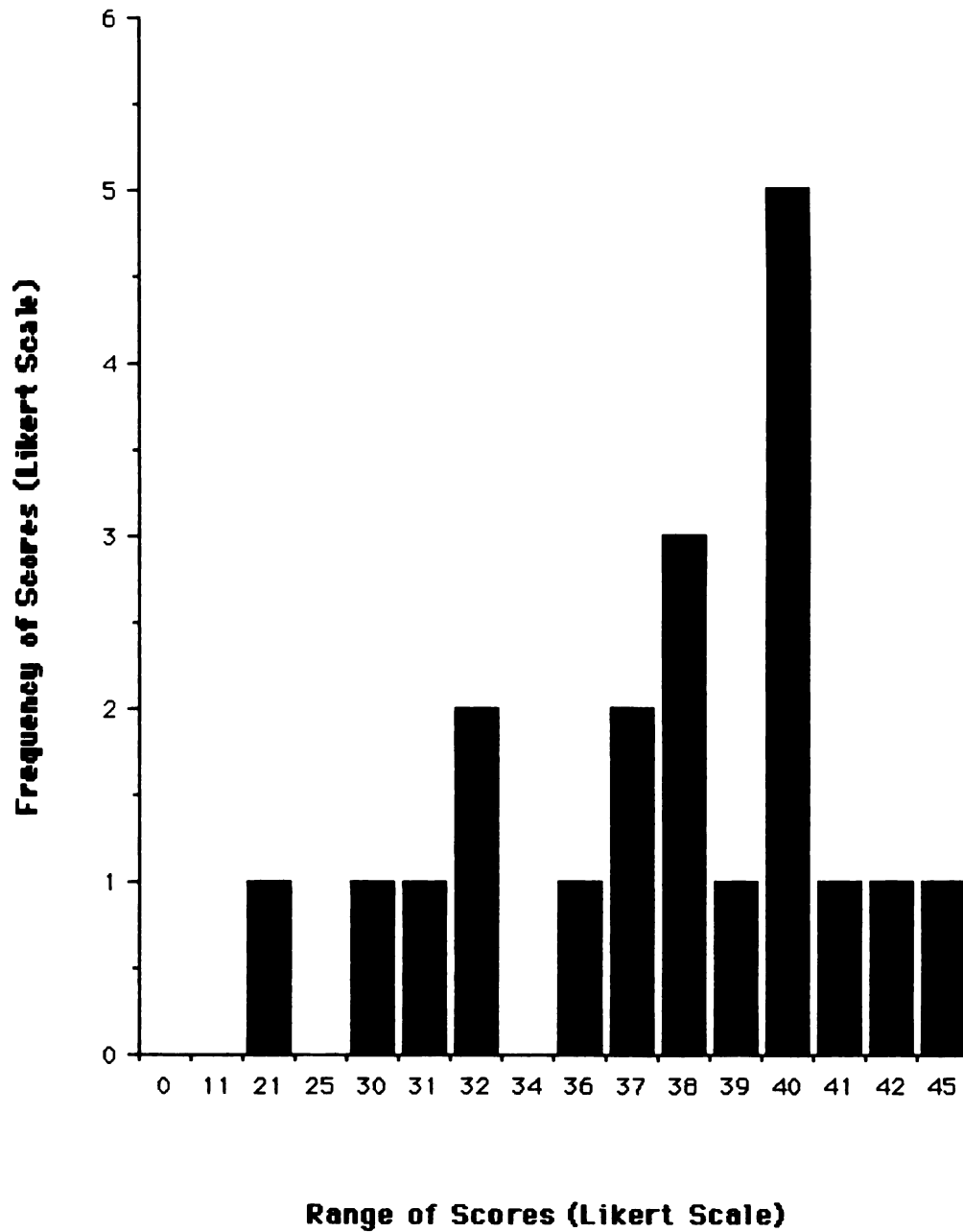


Figure 8  
Distribution of Scores on Likert Scale  
Within Indian-American Group

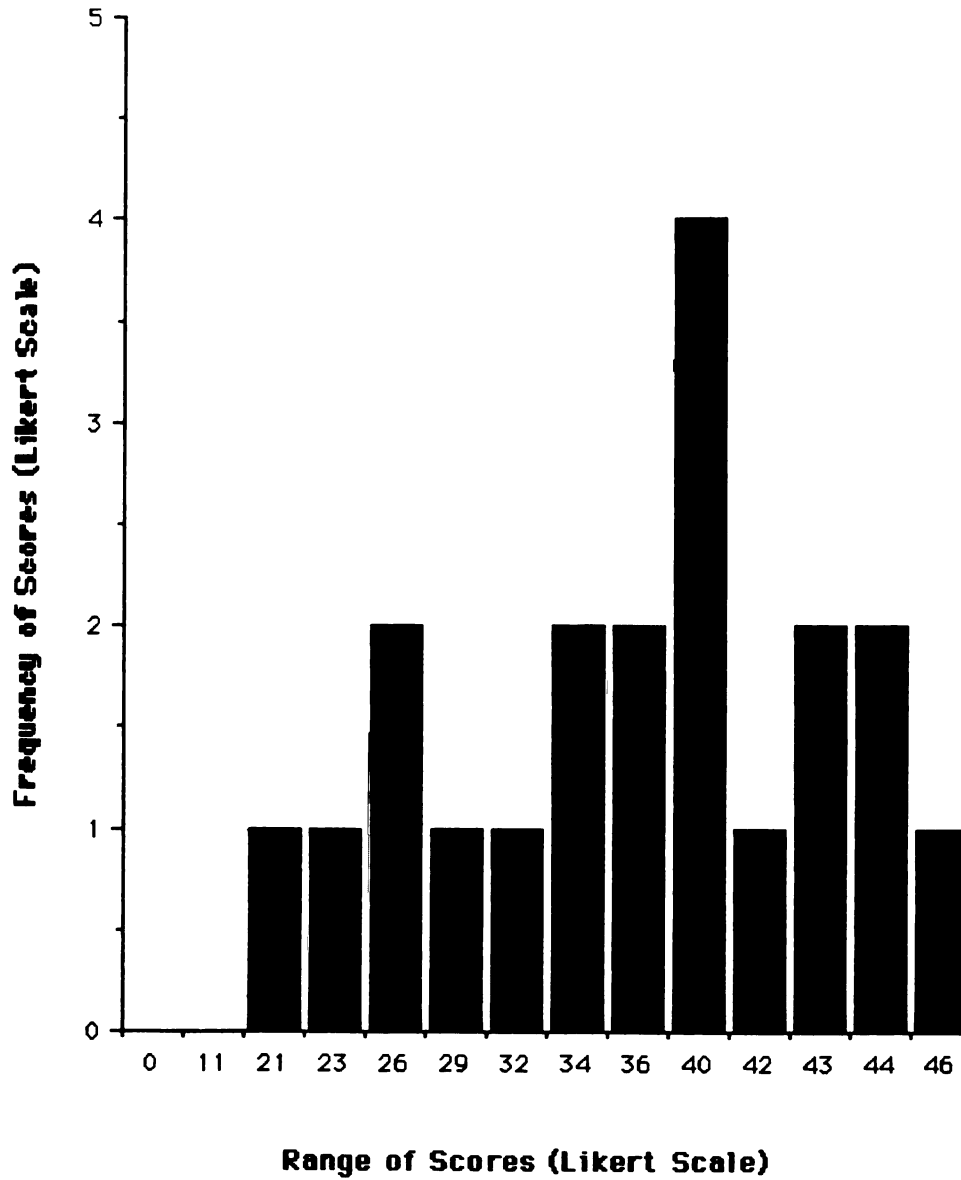
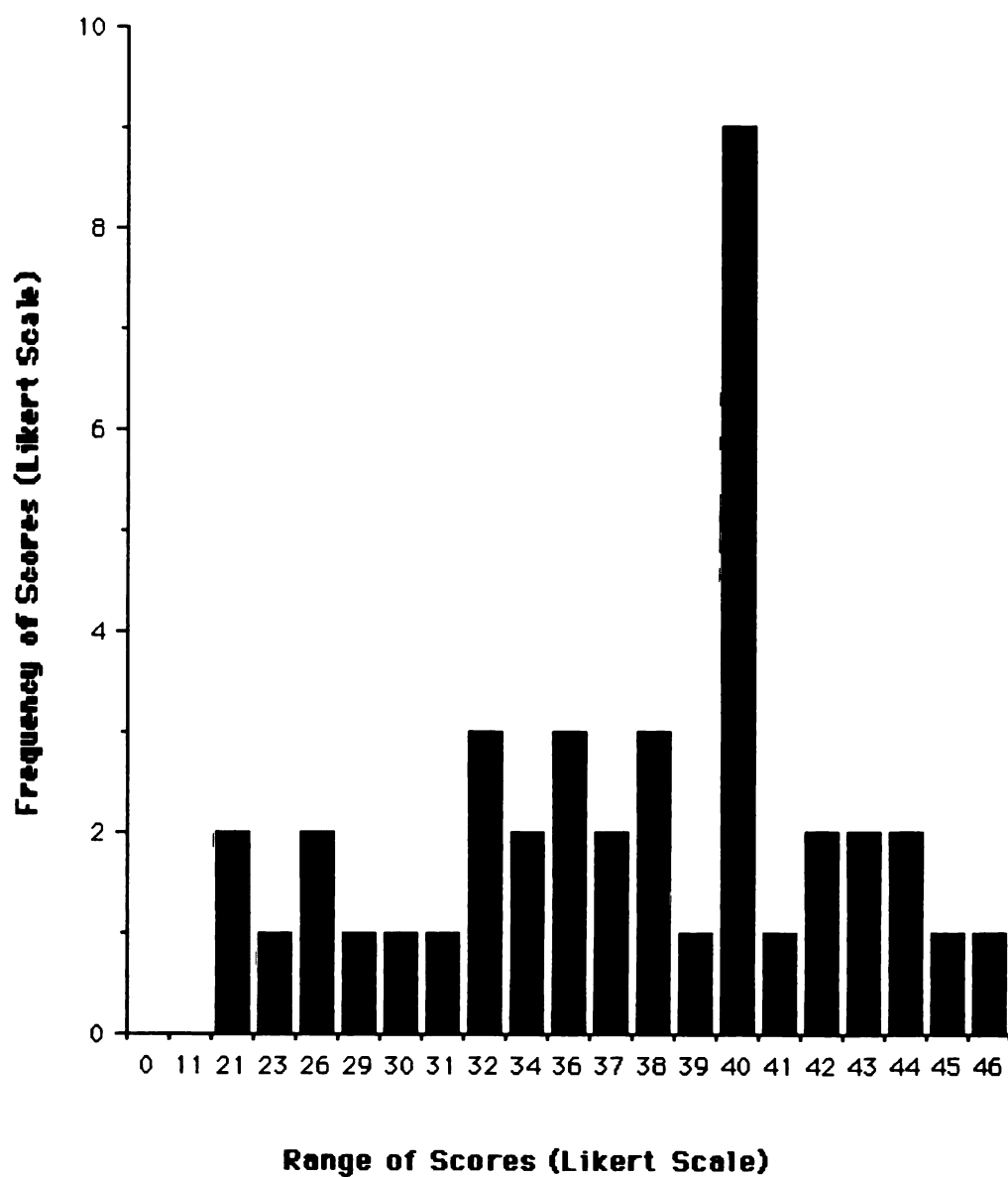


Figure 9  
Distribution of Scores on Likert Scale  
Within Total Sample



## **APPENDIX K**

## APPENDIX K

## Mann-Whitney U Test

**Table 10****Mann-Whitney U Test for Differences in Guilt as Measured by  
TAT**

Group	Mean Rank	U	W	N	p
Caucasian-Americans	20.88	192.5	417.5	20	.84
Indian-Americans	20.13	192.5	417.5	20	.84

\*p< .05

## **APPENDIX L**



## APPENDIX L

## Selected Responses to Thematic Apperception Test

The woman in the picture seems to be surprised by something that the man leaning over the couch has just said. He has just told her something, or perhaps, asked her a question expecting a response. The subject is not shocking, he is calm enough to still be smoking his pipe, but it is something somewhat unexpected to the woman who was startled enough to turn to face the man and raise her eyebrows as if asking him to repeat himself. Perhaps he has just told her how he feels about her, that he is in love with her maybe, for he is leaning close to her. She is not upset nor alarmed. She has merely been taken aback or caught off-guard. She was probably sitting casually on the couch when the man was inspired to tell her about his feelings. She will most likely answer favorably, or positively, for she does not look angry or sad.

The only feeling evoked by this picture is distance. The fact that the man is not only separated by an actual barrier from the woman, but is also at a different height level, suggests an alienated and hierarchial relationship between these two people. They will either continue to bear it or separate.

The two people in the picture obviously know each other on a personal basis. The woman is embracing the man, she stares at his face and she is probably feeling intimate. The man is refusing both her stare and her embrace, he is acting passive. He is not feeling comfortable with the woman who is embracing him and he is looking for some way to terminate this situation. It does not appear likely that the situation portrayed in the picture will last for long.

This man just had a fight with his wife and leaves to go out to a bar where he meets this woman. He is angry and frustrated and when he sees her, he believes that she will make him forget what he's feeling. He is attracted to her. They talk and drink for awhile until he sees his wife walk in by herself. When he sees her he knows that she is the only one for him. The woman wonders why he is acting so strange and then realizes his true feelings for his wife. She had helped him just temporarily. He leaves with his wife to go back home with the one he loves.

She is a young, attractive woman who is on a job interview. She is very nervous. She wants to say and do everything right to get this job. This is the job that she has been waiting and working so hard for. The interview goes smoothly until the end. The man becomes very friendly with her and asks for a little favor, if he were to give her this job. She is forced to choose between her own personal desires for the job or the man's sexual desires. She realizes how unfair all this is, so she keeps her morals and pride and walks out of the office in the end. I guess the job wasn't as important as she thought when she was forced to do something that she didn't want to.

The picture shows the outline of a person looking outside of a completely darkened room. The window is big enough for him to get outside, and the person is shown in the act of stepping towards the window. The intention of getting outside, though, is not clear. He is holding on both sides of the window, it appears that his goal is to get a good look of the outside from a vantage point. He seems almost in contemplation of something that is going on outside, maybe as simple as dawn.

Nothing better to contemplate life or daydream, than to sit at an open window in the darkness. To be within the safety of an architectural structure is at once comforting, and upon staring out the window, stifling and disturbing. What is true freedom? To experience all the pain and joy in a personal moment?

This person has been dealing with some very deep inner feelings concerning an important part of his or her life. He or she has gone from a seemingly dark room to an open window to get some fresh air and light. Maybe looking at the vast world outside the window will make this person's problems appear less traumatic or will give this person some ideas or hope about resolving the problem that he or she faces. The person is optimistic, as he or she holds his or her head upward rather than casting a downward, more sullen look. The trip to the window will be helpful; it will enliven the person.

After months of debating, Sid had finally decided to move into the tiny apartment. He had such great plans for it and so many ideas of how to make it a wonderful place to live. It was exactly what he had wanted and he was feeling very lucky and relieved to have finally settled down. It was dark now and getting later. He headed toward the huge bay window, opened it up, and began thinking, mostly of her. She was wonderful, Rosalyn was. From here he could almost see the light from her room. How nice it would be to spend time with her and be closer to her. Life was good, he thought and he sure was a lucky man to have so much going for him. How he looked forward to tomorrow.

It is morning, just before dawn. The man stands alone and watches out over the peaceful, sleeping city. I thinks about his life and wonders how things ever got so crazy. He dreams about the beautiful girl who pass by his office window every morning. He thinks about his past--back to a time when life was simple and it was easy to tell "the good guys from the bad guys." And then he stops thinking all together and just enjoy the peacefullness and quietness of the morning, before he gets ready to start another crazy day.

The room, filled with darkness, is the place for escape. The one window allows only enough light to be able to see one's thoughts. The darkness is cleansing to the dirty thoughts inhibiting the mind and the ray of light becomes the gateway into a new world. The darkness also tries to gather the thoughts scattered about without using the influence of other objects that may get in the way. It isolates the rest of the corrupted world away from the confused and hopeful mind. What is it that makes one happy? Why aren't I happy? Why am I trying to escape? What is it that I want to find? Is it seen in the light?

The man here is friendly and outgoing. But he is also somewhat shallow, and he loves the woman simply because of her beauty. She loves him also but needs for him to know her. There is something hurting her that she wants him to share, but she is too strong to tell him in plain words. Everything she says has a deeper meaning, a meaning which he invariably does not comprehend. Right now he is turning away from her again. She will probably leave him, however much it hurts her to do so.

The setting is probably in the 1940s, just before and during the second world war. The picture is black and white corresponding to uncolored pictures at the time. A middle-aged woman (Caucasian) probably of upper class, due to her nicely trimmed dress, was sitting down in her family room on a chair next to a table when her husband unexpectedly came up to her from behind and half-startled her. She is turned looking at him from behind to see what he wanted. They both have a serious face, not smiling yet not frowning. The husband is smoking a pipe and is wearing a suit (dark) of some kind. He is also Caucasian and also has light brown hair (some gray). The furniture is wood (table) and is finished. The husband is probably telling his wife to go with him, she was probably waiting for him.

The man walked through the room to open the window. He looks outside at the sky and rest of the town's view. (He is pondering on something most likely).

The man with the pipe probably got into the room from somewhere and then came up behind her. She was probably startled that he was there. An ensuing conversation probably went on and then some sort of argument followed after.

## REFERENCES

## REFERENCES

- Abramson, L.Y., Seligman, M.E.P., & Teasdale, J.D. (1978). Learned helplessness in humans: Critique and reformation. Journal of Abnormal Psychology, 87, 49-74.
- Baumeister, R.F. (1982). A self-presentational view of social phenomena. Psychological Bulletin, 91(1), 3-26.
- Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). Cognitive therapy of depression. New York: Guilford Press.
- Brooke, R. (1983). What is guilt? Journal of Phenomenological Psychology, 16 (2), 31-46.
- Cellini, J.V., & Kantorowski, L.A. (1982). Internal-external locus of control: New normative data. Psychological Reports, 51, 231-235.
- Cronbach, L.J. (1975). Beyond the two disciplines of scientific psychology. American Psychologist, 30(2), 116-127.
- Dar, R. (1987). Another look at Meehl, Lakatos, and the scientific practices of psychologists. American Psychologist, 42(2), 145-151.
- Evans, D.R., Jessup, B.A., & Hearn, M.G. (1975). Development of a reaction inventory to measure guilt. Journal of Personality Assessment, 39, 421-423.
- Gada, M.T. (1982). A cross cultural study of symptomatology of depression: Eastern versus Western patients. International Journal of Social Psychiatry, 28 (3), 195-202.
- Garcia, E., & Blythe, B. (1977). Developing emotional muscle. Athens: University of Georgia Center for Continuing Education.
- Gholson, B., & Barker, P. (1985). Kuhn, Lakatos, and Laudan: Applications in the history of physics and psychology. American Psychologist, 40(7), 755-769.
- Goodenough, D.R. (1987). The nature of individual differences in field dependence. Journal of Research in Personality, 21, 81-99.

- Gore, P.M., & Rotter, J.B. (1963). A personality correlate of social action. Journal of Personality, 31, 58-64.
- Guilford, J.P. (1950). Fundamental Statistics in Psychology and Education (2nd ed.). New York: McGraw-Hill Book Company.
- Guilford, J.P. (1965). Fundamental Statistics in Psychology and Education (4th ed.). New York: McGraw-Hill Book Company.
- Harrow, M., & Amdur, M.J. (1971). Guilt and depressive disorders. Archives of General Psychiatry, 25, 240-246.
- Holmstrom, R.W., Karp, S.A., & Silber, D.E. (1991). The apperceptive personality test and locus of control. Psychological Reports, 68, 1071-1074.
- Hsieh, T.T., Shybut, J., & Lotsof, E.J. (1969). Internal versus external control and ethnic group membership: A cross-cultural comparison. Journal of Consulting and Clinical Psychology, 33(1), 122-124.
- Hui, C.H. (1982). Locus of control: A review of cross-cultural research. International Journal of Intercultural Relations, 6, 301-323.
- Jarrett, R.B., & Weissenburger, J.E. (1990). Guilt in depressed patients. Journal of Consulting and Clinical Psychology, 58(4), 495-498.
- Karon, B. (1981). Thematic apperception test. In A.I. Rabin, Assessment With Projective Techniques: A Concise Introduction (pp. 85-120). New York: Springer Publishing Company.
- Kumar, K. (1986). Are Indians trans-personal in locus of control belief? Indian Journal of Behaviour, 10(4), 25-31.
- Lakatos, I. (1978). The Methodology of Scientific Research Programmes. Cambridge, England: Cambridge University Press.
- Landau, S.I., & Bogus, R.J. (Eds.). (1990). The Bantam Collegiate Roget's Thesaurus. New York: Bantam Books.
- Lazarus, A.A., & Fay, A. (1975). I can if I want to. New York: Morrow.
- Leary, M.R., & Kowalski, R.M. (1990). Impression management: A literature review and two-component model. Psychological Bulletin, 107(1), 34-47.

- Lefcourt, H. (1983). (Ed.), Research with the locus of control construct (Vol. 3). New York: Academic Press.
- Lefcourt, H.M. (1966). Internal versus external control of reinforcement: A review. Psychological Bulletin, 65, 206-220.
- Levenson, H. (1974). Activism and powerful others: Distinctions within the concept of internal-external control. Journal of Personality Assessment, 38(4), 377-383.
- Lindsay-Hartz, J. (1984). Contrasting experiences of shame and guilt. American Behavioral Scientist, 27(6), 689-704.
- Mathew, V.G. (1985). Locus of control: A conceptual analysis. Indian Psychological Review, 28(1), 15-18.
- McCanne, T.R., & Lotsof, E.J. (1987). Locus of control, interpersonal trust, and autonomic responding during visual orienting. Journal of Research in Personality, 21, 40-51.
- McNemar, Q. (1969). Psychological Statistics (4th ed.). New York: John Wiley and Sons.
- Meehl, P.E. (1978). Theoretical risks and tabular asterisks: Sir Karl, Sir Ronald, and the slow progress of soft psychology. Journal of Consulting and Clinical Psychology, 46(4), 806-834.
- Mills, J.K., & Taricone, P.F. (1991). Interpersonal dependency and locus of control as personality correlates among adult male alcoholics undergoing residential treatment. Psychological Reports, 68, 1107-1112.
- Minor, S.W., & Roberts, A.M. (1984). Effects of congruence between locus of control and task instructions on self-efficacy. Psychological Reports, 54, 39-42.
- Mish, F.C. (Ed.). (1990). Webster's Ninth New Collegiate Dictionary. Springfield, MA: Merriam-Webster, Inc.
- Moore, T.W., & Paolillo, J.G.P. (1984). Depression: Influence of hopelessness, locus of control, hostility and length of treatment. Psychological Reports, 54, 875-881.
- Morehead, P.D. (Ed.). (1985). The New American Roget's College Thesaurus. New York: Signet Books.
- Murphy, K.C. (1980). A cognitive-behavioral approach to client anxiety, anger, depression, and guilt. The Personnel and Guidance Journal, 59(4), 202-205.
- Myers, D.G. (1990). Social Psychology (3rd ed.). New York: McGraw-Hill Publishing Company.



Peterson, C., & Seligman, M.E.P. (1984). Causal explanations as a risk factor for depression: Theory and evidence. Psychological Review, 91(3), 347-374.

Phares, E.J. (1976). Locus of Control in Personality. Morristown, N.J.: General Learning Press.

Prociuk, T.J., Breen, L.J., & Lussier, R.J. (1976). Hopelessness, internal-external locus of control, and depression. Journal of Clinical Psychology, 32(2), 299-300.

Rao, V. (1973). Depressive illness and guilt in Indian culture. Journal of Psychiatry, 15, 231-236.

Rothman, E.D., & Ericson, W.A. (1987). Statistics: Methods and Applications (2nd ed.). Dubuque, IA: Kendall/Hunt.

Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80(1), 1-28.

Rotter, J.B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. Journal of Consulting and Clinical Psychology, 43, 56-67.

Sartorius, M., Jablensky, A., Gulbinat, W., & Ernberg, G. (1980). Application of WHO scales for the assessment of depressive states in different cultures. Acta Psychiatrica Scandinavica (Suppl. 285), 62, 204.

Schlenker, B.R. (1986). Self-identification: Toward an integration of the private and public self. In Baumeister, R.F. (Ed.) Public Self and Private Self (pp. 21-55). New York: Springer-Verlag.

Schneider, J.M. (1971). College students' belief in personal control, 1966-1970. Journal of Individual Psychology, 27, 188.

Schwartz, R.M., & Garamoni, G.L. (1986). Cognitive assessment: A multibehavior-multimethod-multiperspective approach. Journal of Psychopathology and Behavioral Assessment, 8(3), 185-197.

Serlin, R.C., & Lapsley, D.K. (1985). Rationality in Psychological Research. American Psychologist, 40(1), 73-83.

Sethi, B.B., Nathawat, S.S., & Gupta, S.C. (1973). Depression in India. The Journal of Social Psychology, 91, 3-13.

Sinha, A.K., Singh, S., & Shukla, A. (1986). Structure of locus of control in Indian executives: Is it different? Psychological Studies, 31(2), 130-135.

Yap, P.F.M. (Ed.). (1965). Affective disorders in Chinese culture: Transcultural Psychiatry. London: DeReuck & Porter.