

A RORSCHACH STUDY OF THE
RELATIONSHIP OF AGE AND
ANXIETY

RONALD E. POWERS

A RORSCHACH STUDY OF THE RELATIONSHIP
OF AGE AND ANXIETY

An Abstract
Presented to the
Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in Psychology

by
Ronald E. Powers
March, 1980

ABSTRACT

The present project was undertaken in order to determine the relationship of age to anxiety. The Rorschach was administered on a group basis to 50 volunteers on the campus of Austin Peay State University, Clarksville, Tennessee. Forty-seven of the subjects were undergraduate students enrolled in classes and the remaining three subjects were library employees at Austin Peay. The sample was divided into two groups, those under 30 years of age, and those over 30 years of age. The ages for the younger group ranged from 18 to 29 with a mean of 22, and ages for the older group ranged from 31 to 53 with a mean of 40. The younger group consisted of 26 subjects, 10 females and 16 males, while the older group consisted of 24 subjects, 11 females and 13 males.

Elizur's anxiety scoring was used to determine the anxiety level (AL) of the subjects in both groups. AL was determined by adding all the weights for each subject's protocol. AL% was then determined for each subject by dividing AL by R (total number of responses). AL% takes into account the effects of R.

When the derived data were subjected to statistical analysis by use of the t-test, a significant difference resulted for AL, but not for AL%. Thus, the results were inconclusive.

A RORSCHACH STUDY OF THE RELATIONSHIP
OF AGE AND ANXIETY

A Thesis
Presented to the
Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in Psychology

by
Ronald E. Powers
March, 1980

To the Graduate Council:

I am submitting herewith a Thesis written by Ronald E. Powers entitled "A Rorschach Study of the Relationship of Age and Anxiety." I recommend that it be accepted in partial fulfillment of the requirement for the degree Master of Arts, with a major in Psychology.

John L. Martin
Major Professor

We have read this thesis and
recommend its acceptance:

Charles R. Gule
Second Committee Member

Garland E. Blair
Third Committee Member

Accepted for the
Graduate Council:

William H. Ellis
Dean of the Graduate School

ACKNOWLEDGEMENTS

I would like to extend my sincere appreciation to Dr. John D. Martin, Professor of Psychology, Austin Peay State University for his patience, long suffering, and aid to the author during his course of study, also to Dr. Garland Blair for his assistance with the statistics and the computer, and to Dr. Charles Grah for his support.

I wish to express my gratitude to my lovely wife, Suzy, and my two wonderful children, Shawn and Becky, for their understanding.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.	1
II. METHOD.	11
The Sample.	11
Description of the Instruments.	11
Administration and Scoring.	12
III. RESULTS	13
IV. DISCUSSION.	14
REFERENCES.	17
APPENDIX.	21

CHAPTER I

INTRODUCTION

Goldfried (1966) emphasized that the Rorschach is not only valuable for a clinician, but it can be a very useful tool in research concerning the measurement of anxiety. Elizur (1949) devised an Anxiety Scale (AS) to measure anxiety responses to the Rorschach. A number of researchers have employed the AS. Elizur defines anxiety as an internal state of insecurity which may take the form of fears, phobias, lack of self confidence, extreme shyness, and marked sensitivity. This inner state may be reduced or eliminated by defensive maneuvers. However, Elizur's scale employs content scoring, which refers only to the level of anxiety, and not the way in which it is expressed or reduced. Elizur reported studies comparing the reliability between two scorers, the obtained correlations have ranged from .81 to .99. Elizur compared eight inexperienced scorers and found a mean correlation of .77, and in comparing his own scoring with these eight inexperienced scorers a correlation of .89 resulted. Construct validity for Elizur's Anxiety Level (AL) on the Rorschach, when compared to the Draw-A-Person projective technique, was favorable (Goldfried, 1966). Anxiety level has also correlated well with subjects' self-ratings, but when compared to an interviewer's

estimate of anxiety, AL proved better than self-ratings (Goldfried, 1966). Elizur's AL did not compare well to paper-and-pencil measures, because of the supposed greater "fakability" of these instruments (Elizur, 1949). Overall, it would appear that the Rorschach AL is sound in inter-scorer reliability, even with a minimal amount of experience.

Also, both construct and predictive validity seem adequate, although more research should be done in these areas. However, AL should be both appropriate and useful for determining and comparing present anxiety levels for subjects at different developmental stages (ages).

Asako (1979) conducted a study on the relationship of age, sex, and conformity to the California Psychological Inventory (CPI). Age correlated significantly with the CPI scales of dominance, status, sense of well-being, responsibility, self control, tolerance, making a good impression, and intellectual efficiency. It appears plausible to assume that a negative relationship would exist between most of the above scales and anxiety. Hence, a negative relationship should exist between age and anxiety.

The intent of the Nasser (1975) study was to investigate the levels of self-esteem, general anxiety, test anxiety, and their interrelationships among the Caucasian,

Black, and Spanish-surnamed students in grades nine through twelve. The relationships of sex and grade levels to these variables were also examined. A factorial analysis of variance performed on the self-esteem data statistically determined significant differences for race, grade levels, and their interactions, but no significant sex differences were found. However, the values for the previous mentioned findings were not stated. Findings for 2,448 subjects determined that the relationship of self-esteem to test and general anxiety was a negative one. Age (grade level) was found to correlate positively with self-esteem and test anxiety, but not for general anxiety.

Saadatmand, Jensen, and Price (1970) predicted that older children would display less dependency anxiety than younger children. The sample consisted of four, six, and eight-year old children. The results of their study would seem to indicate that age is inversely related to dependency anxiety.

Ninety-two subjects were used in a correlational study by Ong (1969) to test the hypothesis that manifest anxiety and projective anxiety are different measures. The Taylor Manifest Anxiety Scale was used as a measure of manifest anxiety, and the Cassel and Kahn Group Personality Projective Technique was

utilized as the projective measure. Analysis of the data confirmed the hypothesis. It was also found that freshmen scored higher on both manifest and projective anxiety than either sophomores, juniors, seniors, or norm groups. Manifest and projective anxiety, therefore showed an inverse relationship to age.

Goldman and Olczak (1975) predicted that a negative relationship should exist between one's overall level of psychosocial maturity as measured by Constantinople's Inventory of Psychosocial Development and one's fear of appearing incompetent as measured by Good and Good's scale. There were 150 subjects tested. Correlations between the scores on the scales indicated a significant negative relationship, thus confirming the prediction. So, the fear of appearing incompetent (anxiety) is inversely related to psycho-social maturation, which appears to be largely a function of age.

The purpose of the study by Manley and Rosemier (1972) was to extend knowledge about the developmental patterns of anxiety beyond the elementary school years. Analysis of the data derived from Sarason's General Anxiety Scale and Test Anxiety Scale for 1,959 subjects determined a significant pattern for both types of anxiety by grade level for boys. Boys' anxiety scores decreased as they moved from lower to higher grade levels, while the

higher scoring girls, although decreasing, were more erratic and showed a spurt, primarily on test anxiety scores, at grade 10. Generally speaking, however, an inverse relationship between age and anxiety, both test and general, for boys and girls was manifested.

Morris, Finkelstein, and Fisher (1976) conducted a two part study involving anxiety. There was a distinction drawn between two types of anxiety: worry and emotionality. Worry was defined as cognitive activity such as concern or dread, which may be consciously experienced. Emotionality was defined as autonomic bodily reactions, which may accompany nervousness or tenseness. In Part One, it was predicted that anxiety, particularly worry, would increase with age faster in girls than in boys as a function of differential socialization procedures. Elementary school and junior high school subjects were administered the School Anxiety Questionnaire. Analysis of the data determined a significant grade level effect for worry, but not emotionality. The results indicated significant decreases in worry with age. However, the distinctiveness of worry and emotionality was supported. The purpose of Part Two was to investigate the relationship between school and test anxiety and their correlation with academic performance. Analysis of the data indicated that school

anxiety was more related to worry than emotionality, and test anxiety was related to both. Academic performance (grades) was significantly and negatively correlated with report card anxiety, worry, and emotionality. Consequences of the school situation were assumed to be more related to worry than emotionality, and the School Anxiety Questionnaire reflected that presupposition. This could help to explain why Part One obtained an inverse relationship between age and worry, but not emotionality.

The purpose of the study by Lockard (1977) was to measure pain perception, anxiety, attitude of patients toward hospitalization, and to investigate the relationship between these variables. There were sixty hospital patients used as subjects, and they were administered the McGill Pain Questionnaire, the Spielberger State-Trait Anxiety Inventory, and a hospital attitude scale in order to determine their pain, anxiety, and attitude toward hospitalization, respectively. Major findings indicated that subjects with intense present pain were also high in state anxiety, while subjects high in pain tolerance displayed high degrees of trait anxiety. It was further found that older subjects had a greater pain tolerance. These results would seem to indicate a positive correlation between age and trait anxiety.

That is, as persons become older, their trait anxiety increases, as indicated by their ability to withstand pain (pain tolerance).

Finch, Kendall, Dannenburg, and Morgan (1978) investigated the effects of stress on emotionally disturbed children. Thirty emotionally disturbed children, average or above in intelligence, were administered the State-Trait Anxiety Inventory before the presentation of a learning task. Subjects were asked to learn an easy and a difficult list of nonsense syllables. Degree of difficulty was operationally defined according to meaningfulness: easy - 100% meaningfulness; difficult - 0% meaningfulness. The easy list of syllables presented a non-failure experience (no stress situation), while the difficult list presented a failure experience (stress situation). Immediately following the ten recall trials on each of the two learning tasks, subjects were asked to complete the A-State Scale of the State-Trait Anxiety Inventory for children as they felt while learning the list, and immediately following the subjects were allowed to complete the A-Trait Scale. Analysis of the data indicated that older emotionally disturbed children increased in A-State anxiety following a difficult task, while A-Trait anxiety remained unchanged. There was no significant difference found on those subtests for the younger children.

Koocher, O'Malley, Foster, and Gogan (1976) predicted that life experiences and personality characteristics may be better determinants of anxiety than age. Junior and senior high school students along with adults, composed a sample of 224 individuals used to investigate the developmental relationship of age to depression, manifest and death anxiety. Subjects were given the Death Anxiety Scale, Taylor Manifest Anxiety Scale, and a depression scale to measure death anxiety, general anxiety, and depression, respectively. Analysis of the data revealed that the senior high group significantly differed from the junior high and adult groups in both death and general anxiety, but there were no significant differences for any group in depression. Since adolescents were more anxious than either children or adults, the data suggested that age per se is not a significant factor for determining anxiety.

Hill and Sarason (1966) conducted a longitudinal study in an attempt to determine the relationship of test anxiety and defensiveness to intelligence, achievement, and school progress over the elementary school years. Two samples were tested over a five year period. The first sample was followed from the first through the fifth grade, and the second sample was followed from the second through the sixth grade. Test scores

for the second grade in the second sample were not available. It was predicted that anxiety would increase with age over the elementary school years for three reasons: accumulative detrimental effects of anxiety (anxiety generating more anxiety), increased accuracy of self reports, and increased demands for academic accomplishments from parents and school personnel. Subjects were administered the Test Anxiety Scale for Children (TASC), the Lie Scale for Children (LSC), and the Defensiveness Scale for Children (DSC) during the first, third, and fifth years of testing, and complete data were obtained for 670 subjects. Intelligence measures were obtained during all five years of testing, and achievement scores were available for the second, fourth, and fifth years of the study. The overall developmental trend shown by the data seems to be that anxiety level (AL) increases with age during the early elementary school years for both girls and boys. During the later elementary school years, however, anxiety level (AL) declines with age for boys, while increasing for girls.

According to Goldfried, Stricker, and Weiner (1971), there seems to be a hint of a developmental trend for anxiety level (AL) present in normal subjects. That is to say, using Elizur's anxiety

scale, AL scores seem to decrease with age from adolescents, to college students, and finally to adults. Although these findings are admittedly only "suggestive," it does appear that maturity, to a great extent a function of age, brings with it more security and less anxiety. It is the opinion of the authors that if anxiety differences are, in fact, found among different age levels, the need for separate age norms would be indicated. Therefore, a more precise developmental study concerning AL would be worthwhile.

The purpose of the present project was to determine the relationship of age to anxiety using the Rorschach. Anxiety responses to the Rorschach were determined by use of Elizur's anxiety scale. It was hypothesized that a negative correlation would eventuate.

CHAPTER II

METHOD

The Sample

The sample used in the present study consisted of 50 volunteers. Forty-seven of the subjects were undergraduate students enrolled in classes at Austin Peay State University, Clarksville, Tennessee, and the remaining 3 subjects were library employees at Austin Peay. The sample was divided into two groups, those under 30 years of age, and those over 30 years of age. The younger group ranged from 18 to 29 with a mean age of 22; the older group ranged from 31 to 53 with a mean age of 40. The younger group consisted of 26 subjects, of whom 10 were females and 16 were males; the older group consisted of 24 subjects, of whom 11 were females and 13 were males.

Description of the Instruments

Rorschach (1932) devised a projective technique consisting of a series of 10 inkblots, some achromatic and some chromatic. Originally an individual test, the Rorschach can now be group administered by using slides. Subjects responded to each of the ten slides by writing their perceptions on appropriate pages provided in a group Rorschach booklet.

Elizur's (1949) anxiety scoring is based primarily on the content of the subject's responses. However, form level and protocol length is also taken into consideration. Elizur's anxiety scoring is defined in Appendix A.

Administration and Scoring

The Rorschach was administered as a group test by using slides. Elizur's anxiety scoring was used for determining the subjects' anxiety levels (AL), which was determined by adding all the weights for each subject's protocol. $AL\%$, which takes into consideration the effects of R (total number of responses) was determined by dividing AL by R.

CHAPTER III

RESULTS

The data derived from the over 30 age group were compared with that derived from the under 30 age group in terms of AL by use of the t -test. The resulting t value of 2.136 was significant at the .05 level. The mean and standard deviation for the older group were 6.33 and 5.79, respectively. The younger group had a mean of 10.96 and a standard deviation of 9.03.

Anxiety level percent (AL%) between the older and younger groups failed to achieve significance. The value for t was 1.80. The mean and standard deviation for the older group were .273 and .246, respectively. The younger group had a mean of .423 and a standard deviation of .110.

CHAPTER IV

DISCUSSION

The significance attained on anxiety level (AL) between the two groups suggested that anxiety and age were inversely related as intimated by Goldfried, Stricker, and Weiner (1971), and as hypothesized in the present paper. The failure to achieve significance, however, on AL% (AL/R) between the two groups discomobulated the previous picture. With reference to the anxiety scoring, the findings regarding the effect of total R on AL are somewhat equivocal. In general, it appears that the evidence points in the direction of a positive relationship between the two. In light of that possibility, Goldfried, Stricker, and Weiner (1971) recommended that some minimal attempt be made to account for total R. Hence, the AL% was employed in the present study in addition to the AL.

Goldfried, Stricker, and Weiner (1971) report that a few investigators offer some weak evidence that AL and R are not necessarily related, while still other findings suggest that AL is inversely related to R. Overall, the picture presented relative to the relationship of AL to R is cloudy and confusing. The current investigation contributed little or nothing toward clarification of the

With reference to methodology, it was decided to control for the effect of R by the use of AL% instead of AL scores, rather than requesting subjects to give a fixed number of responses to each card, or scoring only the first responses to each card, or classifying subjects into high and low total R before comparing groups.

In retrospect, the younger and the older group could have been more distinctly delineated. The younger group ranged in age from 18 to 29; the older group had an age range from 31 to 53. Perhaps a better grouping would have been 18-22 for the younger and 35-50 or so for the older group.

Another consideration is that the conceptualization of anxiety reflected in the scoring system employed refers to experienced anxiety, rather than "unconscious anxiety." Furthermore, the anxiety level indicated by Elizur's content scoring may be viewed as reflecting more of a relatively general personality characteristic of the person, rather than the transitory reaction to a stressful situation (Goldfried, Stricker, and Weiner, 1971). Of course, the distinction being made in the above statement is between anxiety as a trait and anxiety as a state. If the AL score is, indeed, measuring trait anxiety, and if the anxiety

that decreases, theoretically, as a function of age is state anxiety, then no necessary relationship should be expected. Another very real possibility is that anxiety does not decrease with age.

REFERENCES

- Asako, M. The relationship of age, sex, and conformity to the California Psychological Inventory. Unpublished masters thesis, Austin Peay State University, 1979.
- Elizur, A. Content analysis of the Rorschach with regard to anxiety and hostility. Rorschach Research Exchange and Journal of Projective Techniques, 1949, 13, 247-284.
- Finch, J. A., Jr., Kendall, P. C., Dannenburg, M. A., & Morgan, J. R. Effects of task difficulty on state-trait anxiety in emotionally disturbed children. Journal of Genetic Psychology, 1978, 133, 253-259.
- Goldfried, M. R. The assessment of anxiety by means of the Rorschach. Journal of Projective Techniques and Personality Assessment, 1966, 30, 364-380.
- Goldfried, M. R., Stricker, G. Weiner, I. E. Elizur's anxiety scoring. Rorschach handbook of clinical and research applications, 1971.
- Goldman, J. A., & Olczak, P. V. Relationship between psychosocial maturity and fear of appearing incompetent. Psychological Reports, 1975, 36, 21-22.

- Hill, K. T., & Sarason, S. The relation of test anxiety and defensiveness to test and school performance over the elementary school years: A further longitudinal study. Monographs of the Society for Research in Child Development, 1966, 31(2), 1-74.
- Koocher, G. P., O'Malley, J. E., Foster, D., & Gogan, J. L. Death anxiety in normal children and adolescents. Psychiatria Clinica, 1976 9(34), 200-228.
- Lockard, D. E. Relationships between pain, anxiety, and attitude toward hospitalization in medical patients using a traditional and non-traditional setting. (Doctoral dissertation, University of Arizona, 1977) Dissertation Abstracts International, 1978, 38, 5578-B.
- Manley, M. J., & Rosemier, R. A. Developmental trends in general and test anxiety among junior and senior high school students. Journal of Genetic Psychology, 1972, 120, 219-226.
- Morris, L. W., Finkelstein, C. S., & Fisher, W. R. Components of school anxiety: Developmental trends and sex differences. Journal of Genetic Psychology, 1976, 128, 49-57.
- Nasseri, G. Self-esteem, test anxiety and general anxiety among students of three ethnic groups

in grades nine through twelve. (Doctoral dissertation, Northern Illinois University, 1975) Dissertation Abstracts International, 1976, 36, 6481-A.

Ong, J. Manifest and projective anxiety. Psychological Reports, 1969, 24, 707-708.

Rorschach, H. Psychodiagnostik: Methodik und ergebnisse eines wahrnehmungsdiagnostischen experiments (ed. 2) Bern, Huber, 1932. All references are to the English translation by Lemkau, P., and Kronenberg, B. New York: Grune & Stratton, 1942.

Saadatmand, B., Jensen, L., & Price, A. Nurturance, nurturance withdrawal, and resistance to temptation among three age groups. Developmental Psychology, 1970, 2(3), 450.

APPENDIX

APPENDIX A

Elizur's Criteria for Anxiety Scoring

1. (A) This score is assigned when anxiety is expressed explicitly, and all responses in this category receive a weight of 2.

Examples of (A) responses:

- (1.) Expressive Behavior such as animal retreating, or girl running away.
- (2.) Expressed Emotions or Attitudes such as frightened animal, or nervous man.
- (3.) Cultural Stereotypes of Fear such as atomic explosion, or haunted house. Scoring of this type should be done with caution.

2. (a) This score is assigned when anxiety is expressed less obviously, or when it is expressed clearly but symbolically. All responses in this category receive a weight of 1.

Examples of (a) responses:

- (1.) Implied Feelings and Attitudes such as a man with a cornered look, or an unpleasant animal.
- (2.) Moderate Degree of Unpleasantness rather than actual fear, such as Jack-o-lantern, or spiders.
- (3.) Symbolic Responses such as cancerous tumor, or dead leaves. These responses should be scored conservatively.

(4.) Double Connotation clearly reflects both anxiety and hostility, such as frightened animal about to attack, or mouse caught in a trap.

3. Neutral or Unscorable Responses are those which reflect no anxiety as determined by the previously mentioned criteria. Responses in this category receive no weight.

Examples of (Neutral) responses:

- (1.) Animal Skin
- (2.) Bears
- (3.) Beggar
- (4.) Helmet

4. Form Level: All responses scored (A) or (a), which also have a minus form level receive an additional weight of 1.
5. AL is determined by adding all the weights for each subject's protocol in order to quantitatively discriminate the low anxiety subjects from the high anxiety subjects.
6. AL% accounts for the effect of R, which is the number of responses or protocol length. This is done by dividing AL by R for each subject.