AN INVESTIGATION OF THE RELATIONSHIP BETWEEN

FRUSTRATION-AGGRESSION PATTERNS AND

INTELLIGENCE AS SHOWN BY

TWO RACIAL GROUPS

A Thesis

Presented to

the Faculty of the Graduate School

of the

University of Houston

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

By

Jack Tracktir

August 1951

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ALSTRACT

Frustration and intelligence variables are important concepts in clinical and academic psychology. The purpose of this study was to determine the relationship between intelligence and frustration-aggression patterns in a sample of northern Negro and white high school students.

The instrument used for obtaining frustrationaggression patterns was the adult form of the Rosenzweig Ficture-Frustration Study. The test for obtaining measures of intelligence was the Otis Quick-Scoring Test of Mentel Ability, Gamma, Form B. Means for each of the Ficture-Frustration Study scoring factors were obtained and tested for correlation. The group was then subdivided into high, low and middle intelligence to determine the significance of the differences in aggressive reactions at each level of intelligence.

The two tests were administered to 275 students in a Fittsturgh, Fennsylvania, high school; 105 white toys, 80 white girls, 57 Negro toys, and 30 Negro girls were included in the sample.

The results of this study are briefly summarized below.

There were differences between Negroes and whites in frustration-aggression patterns and there were differences in intelligence between the two racial groups. The white group was consistently higher in intelligence at all levels.

No consistent correlative relationships were found between intelligence and Ficture-Frustration Study scores.

Separating the group into high, low and middle intelligence yielded data which accounted for differences found for the total group.

There were no consistently reliable differences between northern Negroes and whites except for the following trends:

At the high and middle intelligence levels, there were no significant differences in frustration-aggression patterns tetween Negro and white males whereas, at the low intelligence level the white males scored higher in intropunitiveness and group conformity while the Negro males were high in extrapunitiveness.

At the high intelligence level, Negro females exceeded the white females in obstacle-dominance while at the middle intelligence level, the white females showed more need-persistence. No differences were noted at the low intelligence level for females.

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CHAFTER I

INTRODUCTION

Frustration as a personality variable and intelligence as a cognitive variable are important concepts in clinical and academic psychology. Various workers in the field, including 1 Rosenzweig and Dollard, et al , have emphasized the aggressive response to frustration with extensive attempts to define the possible factors operative in frustration-aggression patterns. Differences in racial and cultural backgrounds have been related to the direction, type and amount of aggression which results from frustration by McCary³, Dollard⁴, and Monshan⁵. The possibility that intelligence may be related to frustration-aggression patterns, as displayed by members of different racial groups, has not been investigated.

1. Rosenzweig, S., "An Outline of Frustration Theory", J. McV. Hunt, editor, <u>Personality and the Behavior Disorders.</u> New York: Ronald Press, 1944.

2. Dollard, J., et al., Frustration and Aggression. New Haven: Yale University Frees, 1939.

3. McCary, J. L., "Reactions to Frustration by Some Cultural and Racial Groups"., Journal of Personality., 1, 1951.

4. Dollard, J., <u>Caste and Cless in a Southern Town</u>. New Haven: Yale University Fress, 1939.

5. Monahan, J. A., "A Comparative Investigation of Aggressive Reactions of Negro and White Children Attending Two Schools in Austin, Texas"., Unputlished Master's Thesis. University of Houston, 1949. One of the trends that emerges from the literature is the atandonment of the attempt to distinguish between cognitive and motivational traits as measured by various testing procedures. Wechsler proposes a concept of intelligence as a manifestation of the personality as a whole rather than of purely intellectual factors. He trings factor analysis results into juxtaposition with clinical practice to show that non-cognitive factors are always present in cognitive tests. Since aggression is a part of the personality, a concept of intelligence as a manifestation of the total personality may mean that intelligence is an important factor in frustrationaggression patterns.

Blake has indicated that social class position is related to measured intelligence. Significant positive correlations between intelligence test scores and Sims Scorecard ratings were found for students in advanced college classes.

6. Wechsler, D., "Cognitive, Constive and Nonintellectual Intelligence"., American Feychologist, 5, 1950.

7. Blake, R. R., "Relations Between Childhood Environment and the Scholastic and Social Intelligence of Adults"., Journal of Social Psychology. 29, 1949.

Pastore calls attention to the fact that the occurrence of aggressive responses depends on a subject's perception and understanding of the situation. The appearance of a frustrating situation and the subject's response to it are not relevant so there must be another factor which influences the individual's perception and understanding of the situation. It seems logical to assume that individuals who differ in intelligence will differ in their perception and understanding of a situation and as a result, will not respond in the same manner. Aggressive reactions may express a subject's realization of the injustice of a situation or they may serve to maintain a sense of dignity or of individuality.

It is the purpose of this study to investigate the relationship tetween intelligence and frustration-aggression patterns and the infjuence of the relationship on the direction and type of aggression exhibited by members of two racial groups. The sample group has been selected because of the previous work with this group by McCary which provides a frame of reference for the present study, and will be discussed in more detail in the following chapters:

9. McCary, J. L., "Reactions to Frustration by Some Cultural and Racial Groups"., Journal of Personality, 1, 1951.

^{8.} Pastore, N. A., "A Neglected Factor in the Frustration-Aggression Hypothesis"., Journal of Fsychology, 29, 1950.

CHAFTER II

RELATED STUDIES

McCary's study. This investigation involved toth northern and southern locales and was a comparison of toth males and females of white and Negro races. It was the first objective, quantitative study to be made of the aggressive reactions of the Negroes and whites. The subjects included 631 junior and senior high school students ranging from 14 to 22 years of age with a mean age of 17.5 years.

A portion of McCary's results, which is pertinent to the present study, is quoted:

> Northern Negro females and northern white females. Northern Negro females are more overtly aggressive than the more passive, self-tlaming northern white females. The Negroes are more affected by frustrating obstacles and the desire of whites to remove the source of frustration is apparently far greater than that of the Negroes.

Northern Negro males and northern white males. Northern white males are more passive and blameassuming in frustrating situations than are the northern Negro males. There also is a tendency for the northern Negro males to be more overtly aggressive than the northern white males are, although the difference is not significant?.

1. McCary, J. L., "Reactions to Frustration by Some Cultural and Racial Groups"., Journal of Personality, 1, 84-102,1(1951)

2. Itid. p. 98

<u>Monchan's investigation</u>. This study was a comparison of differences in direction and type of aggression of a selected sample of southern Negro and southern white children. The sample included 190 students with a mean age of 11.5 years.

Monahan reports as follows:

Negro boys and white boys. The white boys scored higher in extrapulitiveness and ego-defense than the Negro boys, whereas the Negro boys led the whites in impunitiveness.

Nearo girls and white girls. No significant differences were noted. 4

The work of Dollard. Dollard developed a theory regarding the relationship tetween the Negross and whites based upon observations he made while living in a "typical" southern town. From these impressionistic data, he hypothesized that, since the Negro is not permitted free expression toward the source of frustration (the white caste), he translates his aggression into accomodative tehavior toward the whites thus gaining the nost appropriate adjustment through sutmission.

3. Monshan, J. A., "A Comparative Investigation of Aggressive Reactions of Negro and White Children Attending Two Schools in Austin, Texas". (Unpublished Master's Thesis, University of Houston, 1949).

4. Itid., p. 21.

5. Dollard, J., Caste and <u>Class in a Fouthern Town</u> (New Haven: Yale University Fress, 1937).

The Frustration-Aggression Theory of Collard, et. al.

Dollard, et al, have formulated an elaborate theory of frustration-aggression patterns. They offer the following:

- 1. The strength of instigation to aggression varies directly with the amount of frustration. Variations in the amount of frustration is a function of three factors: (a) strength of instigation to the frustrated response; (t) degree of interference with the frustrated response; and (c) the number of response sequences frustrated.
- 2. The inhibition of any act of aggression varies directly with the strength of the punishment anticipated for the expression of that act. Punishment includes injury to loved objects and failure to carry out an instigated act as well as the usual situations which produce pain.
- 3. In general it may be said that, with the strength of frustration held constant, the greater the anticipation of punishment for a given act of aggression, the less apt that act is to occur; and secondly, with anticipation of punishment held constant, the greater the strength of the frustration, the more apt aggression is to occur.

6. Dollard, J. et al. Frustration and Aggression.
New Haven: Yale University Press, 1939.
7. Dollard, J., et al., Frustration and Aggression

···· p. 37.

These statements represent an introduction to the more pertinent theoretical framework evolved by Rosenzweig.

Rosenzweig's Three-factor Division. Rosenzweig has postulated a three-factor division of conscious reactions to frustration:

- a. Extrapunitive responses are those in which the individual aggressively attributes the frustration to external persons or things. The associated emotions are anger and resentment.
- b. Intropunitive responses are those in which the individual aggressively attributes the frustration to himself. The inturning of aggression is perhaps a consequence of the inhibition of its outward expression. Associated emotions are quiet and remorse.
- c. <u>Impunitive</u> responses differ from both the extrapunitive and intropunitive in that aggression does not apparently supply the motivating force; more socially directed or 'erotic' drives are at work. Here the attempt is made to avoid blame altogether, whether of others or of oneself, and to gloss over the frustrating situ-g ation as though with a conciliatory objective.

The application of Rosenzweig's theory will be treated

in more detail in the next chapter since it forms the basis for

one of the instruments employed in the present study.

^{8.} ROSERzweig, S., "An Outline of Frustration Theory", J. McV. Hunt, editor, <u>Fersonality and the Fehavior Disorders</u>, (New York: Ronald Press, 1944, Vol. 1, Chapter II, p. 383).

CHAFTER III

METHODS AND PROCEDURES

<u>Procedure for Measuring Frustration-Aggression Pat-</u> <u>terns.</u> The procedure used in this investigation to measure frustration-aggression patterns is the <u>Rosenzweig Ficture-</u> <u>1</u> <u>Prustration Study</u>. Rosenzweig has developed the Ficture-Frustration Study tased upon his three factor theory² of frustration already discussed.

The Pieture-Frustration Study is a controlled projective technique composed of a series of twenty-four cartoon-like pictures which portray commonly occurring frustrating situations. In each picture there is a "frustrating" person shown saying certain words to another individual, which either describes the frustrating situation in which this individual finds himself or which are themselves frustrating. Facial expressions are omitted. The instructions to the subject are to write in a blank space the first reply which comes into his mind in response to the frustrating situation.

1. Rosenzweig, S., "The Electure-Association Method and Its Application in a Etudy of Reactions to Frustration", Journal of Personality, Vol. XIX, No. 1, 1945, pp 3-23.

2. Rosenzweig, S., "An Outline of Frustration Theory", (New York: Ronald Fress, 1944) Vol., 1, Chapter II, P 383.

3. To be identified as the P-F Study.

The assumption is, of course, that the testee, consciously or unconsciously, identifies Limself with the frustrated individual and projects what might be his own reaction to a frustrating situation.

Each response is scored for the direction of aggression expressed by the subject's written reply, i. e., extrapunitiveness (E) intropunitiveness (I) and impunitiveness (M), and for the type of reaction, i. e., obstacle-dominance (OD), eg-defense (ED, and need-persistence (NP). These terms evolved from Rosenzweig's frustration theory, are defined as follows:

> Extrapunitiveness. Aggression is employed overtly and directed toward the personal or impersonal environment in the form of emphasizing the extent of the frustrating situation, tlaming an outside agency for the frustration, or placing some other person under obligation to solve the protlem at hand.

Intropunitiveness. Aggression is employed overtly but directed by the subject against himself in the form of a martyr-like acceptance of the frustration as teneficial, acknowledgment of guilt or shame, or an assumption of responsibility for correcting the frustrating situation.

Impunitiveness. Aggression is evaded or avoided in any overt form and the frustrating situation is described as insignificant, as no one's fault, or as likely to be ameliorated by just waiting or conforming.

Obstacle-dominance. The tarrier which occasions the frustration of the subject stands out in the form of emphasis of its severity, interpretation of it as a toon, instead of an obstacle, or a description of it as of slight importance.

Ego-defense. The ego of the subject plays the chief part in the response, and the subject either blames someone else, assumes the blame, or describes the responsibility for the frustration as not attributable to anyone.

Need-persistence. The trend of the response is toward the solution of the protlem inherent in the frustrating situation, and the reaction takes the form of demanding the services of some other person in the solution, of placing the subject himself under the otligation to make the necessary correction or of appealing to time and normally expected ensuing circumstances to bring about rectification."

A group conformity rating (CGR) is also obtained from the P-F study. This score is arrived at by comparing the testee's responses with various popular responses from normative data assembled by Rosenzweig.

Intelligence. The measure of intelligence used in this wtudy was the <u>Otis Quick-Scoring Test of Mental Atility</u>, <u>Gemma</u>, <u>Form B⁵</u>, which gives an Index of Brightnexx (IE) stated in the same form as the I. Q.

While the meaning of the index of trightness is somewhat similar to that of the I. Q. it is derived in a different manner. The pupil's relative trightness is expressed as a positive or negative derivation from the norm of pupils of his age. The difference between a pupil's score and the norm for the same chronological age is added to or subtracted from 100 to obtain his Index of Brightness. Otis states that the index of trightness may be equated with the intelligence quotient.

4. Rosenzweig; S., "The Picture-Association Method..." op. <u>cit.</u>, p. 8-9

5. Otis Quick-Scoring Mental Atility Tests, World Book Co., Yonkers - on - Hudson, N. Y., 1937.

6. Greene, H.A., et al. Measurement and Evaluation in the Elementary School., Longman, Green and Co., Inc., Van Rees Press, New York, (1949). In this study the indices of trightness have teen converted into I.Q's.

<u>Subjects:</u> The subjects used in this study were 27t high school students from a Fittsturg, Pennsylvania high school. Included in this group were 108 white toys, 80 white girls, 57 Negro toys and 30 Negro girls.

TABLE I

BASIC DATA ON SAMPLE FOFULATION USED IN THIS STUDY

Group		N	Mean	<u>1.0.</u> S.D	Range)
White	Male	108	104.8	10.95	133 - 75
White	Fenale	80	104.5	10.77	· 127 - 81
Nøgro	Male	57	96.8	10.39	120 - 71
Negro	Female	30	93.9	12.17	109 - 67

Table I presents data on the intelligence variables for the sample used in this study. These data show a difference in the intelligence of Negroes and whites for both sexes with the white groups exceeding the Negroes.

No attempt was made to equate the subjects on the tasis of socio-economic status, since McCary cites studies in which no relationship was found between socio-economic background and frustration-aggression patterns⁷. It may be noted, however, that

^{7.} McCary, J. L., "Aggressive Reactions to Frustration Shown by Members of Two Cultural Groups". (Unpublished Doctor's Dissertation, The University of Texas, (1948), p 12.

students attending this school come from middle, middle class families.

The P-F study was administered to males and females at different sessions while the Negro and white groups were not separated.

CHAPTER IV

RESULTS

The records were secred for aggressive patterns by the standard Rosenzweig F-F procedure. Means for each of the P-F factors and for intelligence were obtained. The results are reported in terms of the differences in direction, type and amount of aggression, as expressed by these two racial groups, and the relationship of intelligence to these differences.

TABLE II

MEANS, STANDARD DEVISTIONS, AND CRITICAL RATIOS

OF MEAN DIFFERENCES IN P-F SCORES PATTERN

RACIAL CROUPS

Group	N	e ¹ Mean Sd	I Nean SD	M Mian Sd	OD Mean Sd	ED Mean SD b	NP IEAN SD MI	CCR EAN SD
White Male	108	43.9 15.3	29.2 8.7	26.9 10.4	17.9 7.1	54.7 10.6	27.3 10.9	66.0 14.4
White Female	80	41.5 15.7	30.3 8.3	28.2 10.5	18.7 7.8	52.4 11.5	28.8 11.4	66.6 12.4
Critical Rati	0 ²	1.06	0.93	0.83	0.48	1.43	0.88	0.29
Negro Male Negro Female Critical kati	57 30	47.5 14.5 48.7 18.2 0.32	25.5 7.6 26.7 8.1 0.66	27.0 10.7 24.6 12.2 0.90	18.1 6.7 22.3 7.5 2.61*	55.2 10.0 56.2 21.5 0.38	26.8 9.7 21.5 10.9 2.21*	63.1 12.7 66.2 15.1 0.95
White Male	108	43.9 15.3	29.2 8.7	26.9 10.4	17.9 7.1	54.7 10.6	27.3 10.9	66.0 14.4
Negro Male	57	47.5 14.5	25.5 7.6	27.0 10.7	18.1 6.7	55.2 10.0	26.8 9.7	63.1 12.7
Critical Ratio	9	1.49	2.77**	0.66	0.16	0.29	0.35	1.33
Negro Female	30	48.7 18.2	26.7 8.1	24.6 12.2	22.3 7.5	56.2 12.5	21.5 10.9	66.2 15.1
White Female	80	41.5 15.7	30.3 8.3	28.2 10.5	18.7 7.8	52.4 11.5	28.8 11.4	66.6 12.4
Critical Ratio	9	1.94	2.13*	1.41	2.23*	1.47	3.08**	0.12

F

- * Significant at the 5% level of confidence.
- ** Significant at the 1% level of confidence.
- 1. These attreviations are referred to on p. 10.
- 2. Critical Ratio was arrived at by formula: $t = \frac{Hx My}{SZ diff}$.

Table II summarizes McCary's findings in his investigation with this group. In general, he did not find significant differences in Aggressive reactions between northern Negroes and northern whites. However, there were some significant differences which he reports as follows:

<u>Negro women and Negro men.</u> The women showed more otstacle dominance whereas the men displayed more need-persistence.

<u>Negro women and white women.</u> In both intropunitiveness and need-persistence, the whites exceeded the Negross. The Negross scored higher in obstacle-dominance.

Negro men and white men. The whites were more intropunitive than the Negroes.

White men and white women. No significant differences were found.

3. McCary, J. L., "Reactions to Frustration by Some Cultural and Racial Groups"., Journal of Personality, 1, (1951) pp. 97-99.

TABLE III

MEANS, STANDARD DEVIATIONS, AND CRITICAL RATIOS OF MEAN DIFFERENCES IN INTELLIGENCE DETWEEN RACIAL GROUPS AND SEXES.

GROUP		N	MEAN	CHITICAL Ratio	STANDARD DEVIATION
White White	Male Female	108 80	104.8 104.5	. 20	10.9 10.8
Ne gro Ne gro	Male Female	57 30	96.8 93.9	1.13	10.4
White Negro	Ma le Male	108 57	104.8 96.8	4.60*	10.9
Ne gro White	Female Female	30 80	93.9 104.5	4.56*	12.2

* Significant at the 1% level of confidence.

It will be noted in Table III that there is a significant difference in intelligence between the Negro and white groups regardless of sex, whereas, there are no significant differences within the racial groups.

The data in Tatles II and III present significant differences in frustration-aggression patterns between Negroes and whites and also show significant differences in intelligence between the two racial groups. The differences in frustrationaggression patterns may be a reflection in part of the differences in intelligence.

The first step in the analysis was to determine the extent of the relationship between intelligence and frustrationaggression patterns within each of the racial and sex subgroups. These data are presented in Table IV.

TABLE IV

CORRELATIONS BETWEEN P-F SCORES AND I.Q. FOR WHITE MALES (N = 108), WHITE FEMALES (N = 80), NEGRO MALES

P-F	White Mele	White Female	Negro Male	Negro Female	:
T	.51	14	13	15	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
I	005	.41	.002	-08	
M	24	• 30	.16	.17	
OD	0922	.04	14	• 36	
ED	.062	21	-*21		
KP	004	.28	13	.16	
GCR	05	.12	• 39	.26	
	1				

(N =57), AND NEGRO FEMALES (N = 30)

The correlations between intelligence and P-F scores showed no consistent trends.

By dividing these groups into three levels of intelligence, up, er one-third, lower one-third and middle one-third, it may be possible to find differences in the frustration-aggression patterns between the extreme or middle which can be accounted for by the differences in intelligence. Accordingly, the next step indicated involved the separation of the racial groups by levels of intelligence and establishing the significance of the differences between P-F scores at each level⁴.

4. These will be referred to as the High I.Q. Group, Low I.Q. Group, and Middle I.Q. Group.

Separation of Racial Groups by Levels of Intelligence

TALLE V

HIGH I.Q. GROUP

MEANS, ETANDARD DEVIATIONS, AND CRITICAL RATIOS OF

MEAN DIFFERENCES IN INTELLICENCE ESTREEN RACIAL

Group		N	Mean	Critical Retio	Etandard Deviation
White White	Male Female	36 26	116.5	.41	5.5 5.2
Negro Negro	Kale Female	19 10	107.8	1.32	5.4
Thits Nogro	Male Male	36 19	116.5	5.60*	5.5 5.4
Negro White	Female Female	10 26	106.0	7 •77*	2.0

GROUPS

* Significant at 1% level of confidence

Table V shows that within the High I.Q. group, as for the group as a whole, the white males and females are significantly kicher in intelligence than the Negro males and females. There is no significant difference in intelligence levels within the racial groups.

TABLE VI

LOW I.Q. GROUP

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES IN INTELLIGENCE DETWEEN RACIAL

Group	: :	N	Mean	Critical Ratio	Standard Deviation
White White	Male Female	36 26	92.9 92.6	.12	7.2 14.3
Negro Negro	Male Female	19 10	85.5 79.0	2.34**	6.1
white Negro	Male Male	36 19	92.9 85.5	4.05*	7.2
Negro White	Female Female	10 26	79.0 92.6	3.66*	7.7 14.3

CROUPS

* Significant at 1% level of confidence ** Significant at 5% level of confidence

At the low I.Q. extreme, as indicated by Table VI, the white males and females continued to show significantly higher I.Q's than the Negro males and females. In addition, a significant difference appeared at this level, between Negro females and Negro males. The males had a higher mean intelligence.

TABLE VII

MIDDLE I. Q. GROUP

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF

MEAN DIFFERENCES IN INTILLICENCE BETWEEN RACIAL

CROUPS

Group		N	Mean	Critical Ratio	Standard Deviation
White White	Male Female	36 28	104.9 103.8	1.51	2.6 3.0
Ne gro Ne gro	Male Female	19 10	97.1 96.6	-49	2.2 2.8
White Negro	Ma le Ma le	36 19	104.9	11.59*	2.6
Negro White	Femele Femele	10 28	96.6 103.8	6.81*	2.8

Bignificant at 1% level of confidence.

Examination of Table VII shows that again the white males and females lead the Negro males and females.

Tables V, VI and VII demonstrate that the white males and females are consistently higher than the Negro males and females at all three levels of intelligence. This is consistent with I.Q.'s for the total groups, (Table III).

With the significance of the difference in intelligence at each level established, our efforts are now directed toward a comparison of the frustration-aggression patterns between racial groups at each-level of intelligence.

Differences in Aggressive Reactions

TAELS VIII

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-F SCORES ESTWEEN HIGH I.Q. NEGRO MALES (N = 19) AND HIGH I.Q. WHITE MALES

(N =	36) -
------	-------

P-F Classification	Group	Mean	Critical Ratio	Standard Deviation
Z	Negro White	48.2 47.6	.14	14.8
I	Negro White	25.2	1.44	8.5 8.1
M	Negro White	26.6 23.8	.96	9.9 11.8
OD -	Negro White	19.4 17.3	1.06	6.9 7.1
ED	Ne gro White	56.3	.06	10.4
NP	Negro White	24.5	.71	9.9
GCR	Ne aro White	62.1 63.1	,25	13.7

An examination of Table VIII reveals that at the upper level of intelligence racial difference does not show any differences in the direction or type of aggression exhibited by Negro males and white males. The next groups to be compared were the low I. Q. Negro males and the low I.Q. white males.

TABLE IX

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-F SCORES BETWEEN LOW I.Q. NECRO MALES (N = 19) AND LOW I.Q. WHITE MALES (N = 36)

P-F Classification	Group	Meen	Critical Ratio	Standard Deviations
<u>.</u>	Ne gro White	52.1 41.6	2.47*	15.4 14.3
I	Ne gro White	25.1 29.2	2.02*	6.4 8.4
M	Ne gro white	23.2	1.58	11.4 16.7
OD	Negro White	19.5	.08	6.4
ED	Negro White	53.9 53.5	.18	7.8 8.5
NP	Ne gro White	26.7 27.1	.13	9.3 10.7
GCR	Negro White	60.9 66.5	2.00*	12.5
•				

* Eignificant at 5% level of confidence.

An analysis of the data shown in Table IX reveals that the low I.Q Negro male is more overtly aggressive than the low I.Q. white male. The white male, at this level, is more intropunitive and impunitive and leads in group conformity. There is little

difference between other aggressive reactions of the two groups.

The next groups to be compared were the Negro females and white females. Table X involved a study of the differences of aggressive reactions of high I.Q. Negro females and high I.Q. white females.

TABLE X

MEANS, STANDARD DEVIATIONS, AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-F SCORES BETWEEN HIGH I.Q. NEGRO FEMALES (N = 10) AND HIGH I.Q. WHITE FEMALES

(N = 26)

Clas	P-F sification	Group	Mean	Critical Ratio	Standard Devis tion
Alera ang ang atala a	Ľ	Negro White	45.0	1.35	15.1 14.8
	I	Ne gro White	27 • 3 37 • 4	1.70	7.8 7.6
	M	Ne gro White	29.0 30.2	.27	11.9
	OD	Negro White	26.4	2.89*	6.5 8.0
	ED	Negro White	49.0 49.6	.16	10.5
	NP	Ne gro White	25.0 31.4	1.50	11.8 10.2
ч.	GCR	Negro White	71.1 69.2	.49	10.7 9.1

Significant at 1% level of confidence

The only statistically significant difference noted in Table X is that of obstacle-dominance which indicates that the Negroes are more affected by frustrating obstacles.

TABLE XI

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-F SCORES BETWEEN LOW I.Q. NECRO FEMALES (N = 10) AND LOW I.Q. WHITE FEMALES

(N = 26)

Cla Bsi	P-F fication	Group	Mean	Critical Ratio	Standard Deviation
	2	Ne gro White	48.0 42.4	.82	18.9 17.4
	r	Negro White	27.0 29.8	-98	7.6
- - 	M	Negro White	26.0 28.5	.61	10.9
•	QD	Negro White	17.0	.20	5.4
	ED	Negro White	63.0 56.4	1.61	10.9
	NP	Ne gro White	20.4	1.68	8.8 11.9
•	CCR	Negro White	65.0 66.0	.20	12.6 14.8

Examination of Table XI shows no significant differences in aggressive reactions between low I.Q. Negro females and low I.Q. white females.

Comparison of the aggressive reactions at the extremes of high and low intelligence has failed to reveal a consistent significant relationship between differences in intelligence and

differences of frustration-aggression patterns. There are some suggested trends which will te discussed later.

Table XII compares middle I.Q. Negro males with middle I.Q. white males.

TABLE XII

MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-P SCORES ESTWEEN MIDDLE I.Q. NEERO MALES (N = 19) AND MIDDLE I.Q. WHITE MALES

(N = 36)

P-F Classification	Group	Mean	Critical Ratio	Standard Deviation
B	Ne gro White	42.3	.08	11.3 13.2
	Ne gro White	26.4	1.43	7.4
M	Negro White	31.6 27.8	1.52	9.5
OD .	Negro White	15.3	1.00	5.6 5.7
ED	Ne gro White	56.0 54.7	.48	10.8
NP	Ne gro White	28.6 28.5	.003	9.3 11.3
CCR	Ne gro White	67 .4 68 .4	•03	9.9 14.8

Results from the comparison of middle I.Q. Negro males with middle I.Q. white males revealed that there were no significant differences in the direction and type of aggression of the

two groups.

The next groups to be compared were the middle I.Q. Negro females and middle I.Q. white females.

TABLE XIII

MEANS, ETANDARD DEVIATIONS AND CRITICAL RATIOS OF MEAN DIFFERENCES ON THE P-F SCORES BETWEEN MIDDLE I.Q. NEORO FEMALES (N = 10) AND MIDDLE I.Q. WHITE FEMALES (N = 28).

P-F Classification	Group	Nean	Critical Ratio	Standard Deviation
D.	Ne gro Thite	53.8 44.3	1.57	17.4 14.2
I	Ne gro White	26.1 28.9	•97	7.8 8.8
M	Ne gro White	19.8 26.9	1.78	10.8 10.9
OD	Negro White	23.7 19.8	1.60	6.5 8.8
ED	Negro White	56.8 51.1	1.58	9.4 11.9
11	Negro White	19.3 28.9	2.39*	10.6 12.1
CCR	Negro White	63.0 64.4	.02	17.5 13.0

* Significant at 5% level of confidence.

Table XIII shows that, with the exception of need-persistence where the white female exceeds the Negro female, there were no significant differences in aggressive reactions. <u>Discussion</u>. In analyzing the results of this investigation, no consistent relationship was found to exist between intelligence and frustration-aggression patterns. However, suggested trends were noted, some of which are presented and discussed in the following paragraphs.

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In comparing aggressive reactions to frustration of high I.Q. Negro males and high I. Q. white males, no significant differences were found (Tatle VIII). This may be interpreted as indicating that at the upper extrems of intelligence both Negro and white males tend to react to frustration in similar fashion. This would follow the lines of Fastore⁵ who indicated that the occurrence of aggressive responses depends on a subject's perception and understanding of a situation. Both Negroes and whites of high I.Q. may tend, by reason of their high I. Q., to perceive and understand frustrating situations in the same way and thus react similarly.

Comparison of low I.Q. Negro males and low I. Q. white males (Tatle IX) yielded data indicating that the Negro male of low intelligence expresses his aggression overtly, whereas the white male tends to blame himself or to avoid blame entirely. In addition, the white male is more group conforming. The finding of these differences in frustration-aggression patterns between low I.Q. Negro male and low I.Q. white male seems to negate the interpretation that high I.Q. Negro and white males, <u>because of their</u> <u>high I.Q.</u> perceive and understand frustrations she same

5. Pastore, N., "A Neglected Factor in the Frustration-Aggression Hypothesis"., Journal of Psychology. 29, 1950. way and so react similarly. It may seem logical to assume that if this interpretation were valid, it should also hold true at the low I.Q. level. However, this may be an indication that it is only possible to predict the reactions within the high I.Q. group.

Comparing the findings of the high and low I.Q. male groups, the following interpretation may be offered:

Even though competition between the northern white and Negro groups is permitted more openly than it is in the south; there is still some discrimination against the Negro. The high I.Q. Negro is atle to rationalize and handle his aggression on an intellectual level and "make the test of it". The low I.Q. Negro has no recourse tut to react in a primitive fashion with overt aggression toward the source of his frustration and refuse to assume tlame for his "predicament". The low I.Q. white male, having no group to tlame, avoids calling attention to his short-comings ty conforming to the group as much as possible.

It may be noted that McCary's findings regarding differences in aggressive reactions of <u>total</u> northern Negro males and <u>total</u> northern white males appear in the present study within the low I.Q. Group.

High I.Q. Negro females were more affected by frustrating obstacles than were high I.Q. white females (Table X), whereas middle I.Q. white females displayed a greater desire to remove the source of frustration than did middle I.Q. Negro females,

6. McCary, J. L., "Aggressive Reactions to Frustration ... op. eit. pp. 30-31.

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(Table XIII). Together these two I.Q. levels accounted for the differences found for total female groups.

It should be noted that, at all levels of intelligence, the Negroes, regardless of sex, consistently scored lower in intelligence than the white subjects. High I.Q. Negroes had lower I.Q.'s than did high I.Q. whites and so on through low and middle I.Q. levels. This finding was noted in spite of the fact that the subjects were selected from one school and from approximately the same educational level. This may be a reflection of the testing instrument.

CHAFTER V

SUMMARY AND CONCLUSIONS

<u>Summery.</u> This study was to determine the existence of a possible relationship between intelligence and frustrationaggression patterns as shown by two racial groups. The sample upon which this investigation was made consisted of a group of 275 students selected from a single Pittsburgh, Pennsylvania, high school which included 108 white boys, 80 white girls, 57 Negro boys and 30 Negro girls.

The adult form of the <u>Rosenzweig Picture-Frustration Study</u>, a controlled projective technique, was administered to each of the 4 sub-groups to obtain frustration-aggression patterns. Intelligence scores, as measured by the <u>Otis Quick-Scoring Test</u> of <u>Mental Atility</u>, <u>Gamma</u>, <u>Form B</u>, were obtained for each student. The two racial groups were compared to find the relationship tetween frustration-aggression patterns and intelligence. The relationship within each sub-group was tested by correlation and then the groups were divided into 3 intelligence levels; high, low and middle, to determine whether differences in intelligence were related to differences in aggressive responses at each level. The findings of the investigation are briefly summarized telow.

White males and females were consistently significantly higher in intelligence than Negro males and females for the total group and at high, low and middle intelligence levels. There was no relationship found by correlation between intelligence and frustration-aggression patterns.

By separating total groups into high, low and middle level intelligence levels, it was determined at which level or levels the difference in aggressive reactions existed which were found for the total groups.

The following differences in aggressive reactions were found tetween the two racial groups at each intelligence level:

High I.Q. Negro Males and High I.Q. White Males.

There were no significant differences in frustrationaggression patterns between Negroes and whites at this level. It appears that, at the upper level of intelligence, racial differences did not reflect any difference in the direction and type of aggression exhibited.

Low I.Q. Negro Males and Low I.Q. White Males.

The Negro subjects were more overtly aggressive than were the white subjects. The white male showed more intropunitiveness and exceeded the Negro male in group conformity. The findings for the total group were accounted for at this level of intelligence.

Rich I.Q. Negro Females and High I.Q. White Females

The Negro subjects were more affected by frustrating obstacles as was indicated by their significantly higher score for obstacle-dominance. This was the only statistically significant finding for this group but there was an indication that the results for the total groups were to te accounted for at this level of intelligence.

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Low I.Q. Negro Females and Low I.Q. White Females

There were no significant differences in frustrationaggression patterns between racial groups noted at this level.

Middle I.q. Negro Males and Middle I.q. White Meles

There were no significant differences found at this level between aggressive reactions of racial groups.

Middle I.Q. Necro Females and Middle I.Q. White Females

The white subjects exceeded the Negro subjects in needpersistence. There were no other statistically significant differences but it was evident that the low and middle I.Q. groups, together, accounted for the differences found in the total groups.

<u>Conclusions</u> In general, there was no consistent relationship found to exist between intelligence and frustration-aggression patterns but there were these suggested trends:

There were no significant differences in aggressive reactions between high I.Q. Negro and white males. The low I.Q. Negro male was more overtly aggressive whereas the low I.Q. white male was more self blaming and conformed closely to the group. No significant differences in aggressive reactions between Negro and white males were noted at the middle I.Q. level. High I.Q. Negro females exceeded the white females in otstacle-dominance. There were no differences found in frustration-aggression patterns tetween low I.Q. Negro females and low I.Q. white females. At the middle I.Q. level, the white females led the Negro females in need-persistence.

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