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MEASUREMENT OF FEAR OF FAILURE

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Effect of Aroused Testing Conditions on the  
Measurement of Fear of Failure\*

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## Abstract

The Thematic Apperception Test (TAT) was administered to 38, male, high school Ss under both neutral and aroused conditions. The TATs were scored for fear of failure (FF) motivation as measured by the Hostile Press (HP) system developed by Birney, Burdick, and Teevan (1964). An exploratory investigation was conducted to determine the effect of aroused and neutral testing conditions on the amount of HP imagery and its intensity within the same group of Ss. The results indicated that HP scores increased significantly between the neutral and aroused conditions. Nevertheless, a dichotomy of the HP scores at the median indicated that the scores of Ss categorized Low HP under the neutral condition increased significantly under the aroused condition. HP scores of Ss categorized Hi HP under the neutral condition had significantly lower HP scores under the aroused condition. The results were discussed in terms of the FF S's interpretation of the situation and his defensive posture.

Effect of Aroused Testing Conditions on the  
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McClelland, Atkinson, Clark and Lowell (1953) developed a theory of motivation in which an attempt to measure motivation through the content of experimentally controlled fantasy was made. The Thematic Apperception Test (Murray, 1938) was used by McClelland as the projective measure through which the fantasy content of short standardized stories was analyzed. He defined his experimental variable, need achievement (n Ach), as concern over competition with a standard of excellence and used "affect" as a limited basis for achievement motivation rather than biological needs or strong stimuli.

McClelland et al. (1953) devised a system for content analysis of the TAT stories through which a rough intensity measure of need for achievement motivation was scored by an objective counting measure. The method of content analysis was based on the definition for achievement imagery and categories indicating the degree or amount of achievement motivation. The method reflected a high agreement among trained scorers and seemed to reduce judgment to a minimum. Unlike the rich personal documents collected by clinical use of the TAT, McClelland obtained from the short standardized stories what he called the "thought sampling" aspect of the groups tested (McClelland, et al., 1953).

By varying the cues in achievement-related instructions, tasks and/or experiences of success or failure, McClelland et al. (1953) found he could manipulate the degree of achievement

motivation exhibited in TAT stories. They used the following six experimental conditions: Relaxed, Neutral, Achievement-oriented, Success, Failure and Success-Failure. McClelland and his associates discovered that achievement related categories increased in frequency when motivation was experimentally increased, and that all experimental conditions were capable of producing such an increase. This discovery aided McClelland in developing and validating his scoring system for n Ach.

When TAT stories were scored for n Ach, it was found that some individuals were motivated toward success primarily by a desire to avoid failure while others were motivated by a hope of success. This indicated a distinction between what McClelland called "hope of success" (HS) individuals and "fear of failure" (FF) individuals. The HS individuals were characterized by successful competition with a standard of excellence, and they perceived their probability of success in an achievement situation as relatively great. Alternately, the FF individuals seemed to have failed a good deal of the time in achievement situations and perceived their probability of success as relatively low (McClelland, et al. 1953).

In an attempt to isolate and measure the behavior of the FF individual in an achievement situation, Birney, Burdick and Teevan (1960) designed the Hostile Press (HP) scoring system, which was intended to identify the FF individual and measure the intensity of his FF motive. A modified Thematic Apperception Test (Murray, 1938) was used as the projective measure through which the fantasy content of short standardized stories was analyzed for FF motivation independent of n Ach

motivation. The concept of press used in the HP scoring system was the same as that of Murray (1938). The HP system was based on the S's written reaction to the TAT slides, and the story was scored only if it contained HP imagery. HP imagery was scored when someone in the story was subject to one of the following situations: (1) reprimand for personal actions, (2) legal or judicial retaliation, (3) deprivation of affiliative relationships, and (4) hostile, vague environmental forces to include violation of privacy, inducement to crime, destruction of beliefs, or any major assault on well being. After being scored for HP imagery, stories are scored for sub-categories if appropriate criteria are present in the story. The sub-categories included need (statement of withdrawal, relief, or escape from the press), instrumental reaction to press, affect reaction to press, goal anticipation, and press thema. The HP scoring system operationally defined Ss scoring high in HP as FF individuals.

Paralleling the validation procedures used by McClelland et al. (1953), Altschul and Kirkpatrick (1963) found that HP imagery increases with the experience of failure. Their data also indicated that total scores under both neutral and aroused conditions were responses to shifts in several of the scoring system categories.

Continuing the investigation by Altschul and Kirkpatrick (1963), this study was to determine the effect of aroused and neutral testing conditions on the amount of HP imagery and its intensity within the same group of Ss. Beside investigating the total shift in HP, this study was designed primarily to determine the effects of aroused conditions on HP scores of

Ss categorized as Low FF or High FF under neutral conditions. Although McClelland et al. (1953) used six experimental conditions to show that n Ach scores increased as motivation was experimentally increased, they did not report dichotomizing their samples and determining the effects of arousal on the High or Low n Achievers. Due to the fundamentally basic differences in how High and Low FF Ss perceive an achievement situation (Birney et al., 1964; McClelland et al., 1953) and due to the defensive nature of the High FF individual (Thomas and Teevan, 1964), it seems justifiable to expect that there would be a difference in how the aroused conditions affected the HP scores of the two groups. Nevertheless, since the author had no real basis for prediction but believed there was a great deal to be gained from an exploratory investigation of this nature, no predictions as to the shifts for Low and High HP Ss under aroused conditions were made.

#### Method

Subjects. Thirty-eight male Ss in the Warrior Run Sophomore Class were tested.

Apparatus. Six TAT slides in the prescribed order, six-page story forms, projector, screen, and stopwatch are needed to give both neutral and aroused TAT. A 200 problem arithmetic task was also utilized in administering the aroused TAT.

Procedure. In administering the neutral TAT, 38 Ss were tested as a group in the high school auditorium. A six-page story form with the following four groups of questions on each page

were given to the Ss: (A) What is happening? Who are the persons? (B) What has led up to this situation? That is, what has happened in the past? (C) What is being thought? What is wanted? By whom? and (D) What happens? What will be done?

After the Ss are instructed to place their name, age, sex, class, and the date on the back of the story form, the following instructions are read to the group:

"This is a test of your creative imagination. A number of pictures will be projected on the screen before you. You will have twenty seconds to look at the picture and then about four minutes to make up a story about it. Notice that there is one page for each picture. The same four questions are asked. They will guide your thinking and enable you to cover all the elements of a plot in the time allotted. Plan to spend about a minute on each question. I will keep time and tell you when it is about time to go on to the next question for each story. You will have a little time to finish your story before the next picture is shown.

Obviously, there are no right or wrong answers, so you may feel free to make up any kind of a story about the picture you choose. Try to make them vivid and dramatic, for this is a test of creative imagination. Do not merely describe the picture you choose. Tell a story about it. Work as fast as you can in order to finish in time. Make them interesting. Are there any questions? If you need more space for any question, use the reverse side."

One week after administering the neutral TAT, the aroused TAT was administered to the same Ss by a different E. Prior to administering the TAT, the E explained to the Ss that the purpose of the testing session was to obtain measures of intelligence and that his research had thus far indicated a high correlation between an arithmetic task, TAT stories, and intelligence. The Ss were told that they were being utilized to help substantiate the E's theory and that there was no relationship between the prior testing session and this session. The E then gave the Ss a series of 200 four digit arithmetic problems. After 5-min. of problem solving, the Ss exchanged papers and corrected them under the E's direction. Upon collecting the papers and leafing through them, the E indicated to the Ss that their scores seem significantly lower than comparable groups previously tested. The TAT was then administered in the same manner as the neutral TAT.

In order to do t-tests for neutral versus aroused frequencies on each sub-category, the number of stories out of the four possible was noted. An appropriate percentage score for each category was assigned (0, 25, 50, 75, 100). The percentages were then transformed by means of the arc-sin percentage transformation, and the statistical analysis was based on the transformed scores.

### Results

A t-test of means for HP scores between neutral and aroused conditions was significant at the .05 level (two tailed;  $t=2.207$ ;  $df=37$ ). These data indicated an increase in

HP scores under aroused conditions in that the mean HP neutral score equaled 2.65 and the mean HP aroused score equaled 3.95. A Pearson product moment correlation coefficient was calculated for HP neutral and HP aroused scores. The correlation coefficient equaled .293, which was significant at the .05 level (one tailed).

A t-test of means for HP scores between Ss categorized Low HP (median split) under neutral conditions and their scores under aroused conditions was significant at the .01 level (two tailed;  $t=3.75$ ;  $df=23$ ). These data indicated that scores of Low HP Ss in the neutral condition rise significantly under aroused conditions. The mean HP neutral score for Low HP Ss equaled .875; for the aroused conditions the mean HP score equaled 3.13. In contrast, a t-test of means for HP scores between Ss categorized high HP under neutral conditions and their scores in the aroused condition was significant at the .05 level (one tailed;  $t=1.87$ ;  $df=13$ ). Nevertheless, the direction of the shift was in the opposite direction from that of the low HP Ss in that their mean HP neutral score equaled 5.71 and their mean HP aroused score equaled 4.64. These t-tests were supported by a 3x2 Chi-square test in which Ss categorized high and low HP under neutral conditions were run against difference scores (difference scores were computed by subtracting the neutral HP score from the aroused and were categorized as plus, minus, or equal). The Chi-square analysis was significant at the .05 level, whether the median

score of two was included to indicate a low HP S or whether all scores of two were excluded from the analysis (See Tables 1 & 2). The Chi-square analysis indicated that scores of Low HP Ss under neutral conditions tend to rise under aroused conditions while scores of High HP Ss tend to decrease.

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Insert Tables 1 & 2 about here  
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Chi-square tests between the problem solving task scores (high; low) and HP scores under both conditions and difference scores yielded no significant results.

The frequency of scoring HP imagery and all sub-categories under both neutral and aroused conditions are shown in Table 3. As indicated in Table 3, significance at the .05 level for t-tests between neutral and aroused conditions was found for the following categories: HP imagery, negative affect, and press thema. Although significance was not found for the remaining categories, all shifts were in the hypothesized direction except the category of positive instrumental activity.

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Insert Table 3 about here  
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Table 4 illustrates the frequency of scoring HP imagery and all sub-categories under neutral and aroused conditions for Ss categorized as Low HP under neutral conditions. HP imagery, need, negative affect and press thema were the categories that yielded at least .05 level significance in t-tests between neutral and aroused conditions. The shifts in the remaining categories were not significant, but were in the expected direction.

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Insert Table 4 about here  
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Table 5 illustrates the frequency of scoring HP imagery and all sub-categories under neutral and aroused conditions for Ss categorized as High HP under neutral conditions. Although all frequency shifts indicated a decrease between the neutral and aroused conditions except the sub-category, questionable goal anticipation, t-tests for each category yielded no significant results. It should be pointed out that the population size for this group was 14.

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Insert Table 5 about here  
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### Discussion

The analysis of the effects of aroused conditions on Ss categorized Low or High FF proved to be unique. Low FF Ss increased in HP under aroused conditions while High FF Ss decreased in HP. Reasons for these opposite shifts in HP scores may be due to several factors. After having completed the arithmetic task and having been told by the E that their scores seemed to be below those of comparable groups, the High FF Ss may have lost the arousal set due to failure. That is, they perceived having failed the arithmetic task and did not find it necessary to defend in writing the TAT stories, for they had already failed in the achievement situation. Credence may be added to this speculation by the fact that High FF Ss seek social desirability (Teevan and Hartsough, 1964). Since the arithmetic task was corrected before taking the TAT and was corrected by other Ss, the high FF Ss may have decreased their defensiveness, for they knew the results of the TAT stories would not be seen by their peers.

Another possible factor for the downward shift of HP scores for the High FF Ss could have been the fact that they had written such high HP stories under neutral conditions that it was not possible for them to create stories with such a high HP content again.

The upward shift of the Low FF Ss may have been due to their realistic nature or perception of the situation. They knew from the E that they had not done well on arithmetic

task. They also realized that their probability of not exhibiting a high intelligence level (failure) had increased; thus, they had higher HP scores in the aroused condition, for their FF motivation had realistically increased.

Adding validity to the HP scoring measure was the fact that for Low Ss all sub-categories showed increased frequencies between the neutral and aroused conditions. Only the sub-category, questionable goal anticipation, did not indicate decreased frequency for High Ss; all other sub-categories decreased between neutral and aroused conditions for High FF Ss.

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Table 1

Relationship of Hostile Press Scores under Neutral Conditions to Difference Scores\*

|                   |       | Neutral HP Scores |          |        |
|-------------------|-------|-------------------|----------|--------|
|                   |       | Low HP            | High HP  |        |
| Difference Scores | Plus  | 5                 | 4        | 9      |
|                   | Minus | 1                 | 8        | 9      |
|                   | Equal | 8                 | 2        | 10     |
|                   |       | 14                | 14       | 28     |
|                   |       | $X^2=9.15$        | $p<.025$ | $df=2$ |

\*Median score of two discarded in this analysis.

Table 2

Relationship of Hostile Press Scores under Neutral Conditions to Difference Scores\*

|                   |       | Neutral HP Scores |          |        |
|-------------------|-------|-------------------|----------|--------|
|                   |       | Low HP            | High HP  |        |
| Difference Scores | Plus  | 15                | 4        | 19     |
|                   | Minus | 1                 | 8        | 9      |
|                   | Equal | 8                 | 2        | 10     |
|                   |       | 24                | 14       | 38     |
|                   |       | $\chi^2=13.68$    | $p<.005$ | $df=2$ |

\*Median Score of two included in this analysis.

Table 3

Frequency of Scoring Hostile Press Imagery and Sub-categories under Neutral and Aroused Conditions

|                                | Neutral<br>Frequency | Aroused<br>Frequency | t value | df | Significance<br>Level |
|--------------------------------|----------------------|----------------------|---------|----|-----------------------|
| Unrelated Press Imagery        | 109                  | 92                   | 1.846   | 37 | .05 one tailed        |
| Hostile Press Imagery          | 43                   | 60                   | 2.25    | 37 | .05 two tailed        |
| Need                           | 8                    | 17                   | -----   | 37 | N. S.                 |
| Positive Instrumental Activity | 2                    | 0                    | -----   | 37 | N. S.                 |
| Negative Instrumental Activity | 0                    | 2                    | -----   | 37 | N. S.                 |
| Positive Goal Anticipation     | 0                    | 0                    | -----   | 37 | N. S.                 |
| Negative Goal Anticipation     | 0                    | 1                    | -----   | 37 | N. S.                 |
| Questionable Goal Anticipation | 1                    | 3                    | -----   | 37 | N. S.                 |
| Positive Affect                | 0                    | 0                    | -----   | 37 | N. S.                 |
| Negative Affect                | 4                    | 11                   | 1.77    | 37 | .05 one tailed        |
| Press Thema                    | 12                   | 59                   | 2.31    | 37 | .05 two tailed        |

Table 4

Frequency of Scoring Hostile Press Imagery and Sub-categories under Neutral and Aroused Conditions for Subjects Categorized as Low Hostile Press under Neutral Conditions

|                                | Neutral<br>Frequency | Aroused<br>Frequency | t value | df | Significance<br>Level |
|--------------------------------|----------------------|----------------------|---------|----|-----------------------|
| Unrelated Press Imagery        | 85                   | 62                   | 4.17    | 23 | .002 two tailed       |
| Hostile Press Imagery          | 11                   | 34                   | 4.78    | 23 | .002 two tailed       |
| Need                           | 0                    | 10                   | 2.50    | 23 | .02 two tailed        |
| Positive Instrumental Activity | 0                    | 0                    | ----    | 23 | N. S.                 |
| Negative Instrumental Activity | 0                    | 1                    | ----    | 23 | N. S.                 |
| Positive Goal Anticipation     | 0                    | 0                    | ----    | 23 | N. S.                 |
| Negative Goal Anticipation     | 0                    | 1                    | ----    | 23 | N. S.                 |
| Questionable Goal Anticipation | 0                    | 0                    | ----    | 23 | N. S.                 |
| Positive Affect                | 0                    | 0                    | ----    | 23 | N. S.                 |
| Negative Affect                | 0                    | 8                    | 2.05    | 23 | .05 one tailed        |
| Press Thema                    | 10                   | 33                   | 5.00    | 23 | .002 two tailed       |

Table 5

Frequency of Scoring Hostile Press Imagery and Sub-categories under Neutral and Aroused Conditions for Subjects Categorized as Low Hostile Press under Neutral Conditions

|                                | Neutral<br>Frequency | Aroused<br>Frequency | t value | df | Significance<br>Level |
|--------------------------------|----------------------|----------------------|---------|----|-----------------------|
| Unrelated Press Imagery        | 24                   | 30                   | -----   | 13 | N. S.                 |
| Hostile Press Imagery          | 32                   | 26                   | -----   | 13 | N. S.                 |
| Need                           | 8                    | 6                    | -----   | 13 | N. S.                 |
| Positive Instrumental Activity | 2                    | 0                    | -----   | 13 | N. S.                 |
| Negative Instrumental Activity | 0                    | 0                    | -----   | 13 | N. S.                 |
| Positive Goal Anticipation     | 0                    | 0                    | -----   | 13 | N. S.                 |
| Negative Goal Anticipation     | 0                    | 0                    | -----   | 13 | N. S.                 |
| Questionable Goal Anticipation | 1                    | 3                    | -----   | 13 | N. S.                 |
| Positive Affect                | 0                    | 0                    | -----   | 13 | N. S.                 |
| Negative Affect                | 4                    | 3                    | -----   | 13 | N. S.                 |
| Press Thema                    | 32                   | 26                   | -----   | 13 | N. S.                 |

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13. ABSTRACT

The Thematic Apperception Test (TAT) was administered to 38, male, high school Ss under both neutral and aroused conditions. The TATs were scored for fear of failure (FF) motivation as measured by the Hostile Press (HP) system developed by Birney, Burdick, and Teevan (1964). An exploratory investigation was conducted to determine the effect of aroused and neutral testing conditions on the amount of HP imagery and its intensity within the same group of Ss. The results indicated that HP scores increased significantly between the neutral and aroused conditions. Nevertheless, a dichotomy of the HP scores at the median indicated that the scores of Ss categorized Low HP under the neutral condition increased significantly under the aroused condition. HP scores of Ss categorized Hi HP under the neutral condition had significantly lower HP scores under the aroused condition. The results were discussed in terms of the FF S's interpretation of the situation and his defensive posture.

| 14. KEY WORDS   | LINK A |    | LINK B |    | LINK C |    |
|---|--------|----|--------|----|--------|----|
|   | ROLE   | WT | ROLE   | WT | ROLE   | WT |
| Hostile Press<br>Fear of Failure<br>Aroused testing conditions<br>Neutral testing conditions<br>Difference scores |        |    |        |    |        |    |