Women and the Fear of Success: A Problem in Replication.

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WOMEN AND THE FEAR OF SUCCESS: A PROBLEM IN REPLICATION

By Adeline Levine and Janice Crumrine

Prepared for Presentation at the

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ABSTRACT

WOMEN AND THE "FEAR OF SUCCESS": A PROBLEM IN REPLICATION

This research attempts replication and expansion of M. Horner's findings which led to her conclusion of women's "motivation to avoid success." Seven hundred male and female college students wrote stories to randomly assigned cues concerning success of a male or female medical student. Content analysis showed: the majority of all stories contained "fear of success imagery"; a smaller proportion of women than of men respondents wrote stories high in "fear of success imagery"; women were less likely to write stories high in "fear of success imagery" to female than to male stimulus. These and other findings underscore the need for careful examination and replications before tentative concepts in popular or controversial areas become conventional wisdom.
WOMEN AND THE FEAR OF SUCCESS: A PROBLEM IN REPLICATION

While the differential achievements of men and women have long been of interest to some researchers, recently this interest has been heightened in response to renewed scholarly and popular attention to women's ability and achievements in general. It is widely recognized that women do not occupy the vocational positions of the highest prestige, nor do they acquire high level academic degrees in proportion to their numbers in the population (U. S. Dept. of Labor 1969, pp. 187, 191, 193, 195, 199; U. S. Bureau of Census 1971, p. 13; Sells 1972).¹

Matina Horner has recently proposed one of the more ingenious explanations for women's general failure to achieve high level goals. Horner, a psychologist interested in the differences in achievement motivation of men and women, has identified "a stable, enduring personality characteristic" which she terms a "motive to avoid success" (Horner 1970, p. 47). She states, "The arousal of motivation to avoid success may very well account for a major part of the withdrawal of so many trained American women from the mainstream of thought and achievement" (Horner 1970, p. 70).

She argues that when women anticipate that there is a high probability of achieving academic or vocational goals considered prestigious in our society, they become anxious as the "motive to avoid success" is activated. Horner says succinctly, "Whereas men are unsexed by failure...women seem to

¹ Sells recent analysis of the graduate school performance of Woodrow Wilson Fellows used data collected 6 to 8 years after their entrance into graduate school. Among this elite sample of the graduate population entering between the years 1958 and 1962, 45% of the Fellows had neither earned their doctorate, nor were they enrolled in graduate school; they were dropouts. While the dropout rate differed by discipline, in every case the women had a 44% higher dropout rate than did the male students.
be unsexed by success" (Horner 1970, p. 55).

Horner's conclusions were based upon research done for her doctoral dissertation (Horner 1968). The "motive to avoid success" was indicated by the performance of students who had displayed "fear of success imagery" in response to an TAT story stem, compared to the performance of those who had not displayed such imagery. In her study, 90 undergraduate women at the University of Michigan wrote stories to complete the following story stem, "After first-term finals Anne finds herself at the top of her medical school class." 88 undergraduate men wrote stories to complete "After first-term finals John finds himself at the top of his medical school class." Note that men wrote about male stimuli, while women wrote about female stimuli, thus confounding the sex of the stimulus and the sex of the respondent.

After using a "very simple present-absent scoring system...for fear of success imagery" (Horner 1968, p. 105), Horner found that "only 10% of the men, compared with more than 65% of the women, wrote stories high in fear of success imagery" (Horner 1970, pp. 63-64).

This paper describes an attempt to partially replicate Horner's widely cited study (Benson 1972; Gornick 1972; Gornick 1973; Hoe and Levine 1971; Horner 1971a, 1971b, 1971c; Morse and Bruch 1970) by comparing the incidence and amount of "fear of success imagery" in men and women while providing the opportunity for both men and women respondents to write about "Anne" or "John".

**METHOD:** Seven hundred undergraduate students enrolled in five Introductory Sociology courses at SUNY/Buffalo in October 1971 were given
a paper stating: "I. On this page, there is a description of an event. Your task is to make up as dramatic a story as you can. Tell what had led up to the event, describe what is happening at the moment, what the persons involved are feeling and thinking, and then give the outcome."

On half of the sheets the event alluded to was "II. After first-term finals, Anne finds herself at the top of her medical school class."

On the other half, it was "After first-term finals, John finds himself at the top of his medical school class."

The students were given ten minutes to write stories, and then a brief questionnaire was handed to each one, asking for background information. They were asked to clip the information sheet to the story sheet, and when the papers were collected, the researchers immediately placed the information sheet behind the story sheets, so that the persons scoring the stories would not have any information about the respondents.

Content Analysis: 1. Following Horner's scoring categories a count was made of stories with at least one sentence expressing negative attitudes toward success or negative consequences of success. This count is comparable to Horner's "present-absent" scoring system. 2. The percentage of sentences expressing negative attitudes toward success, or negative consequences of Anne's or John's successful achievement was also computed. 3. Denial of the cue, or of effort in reaching the goal was scored separately. 4. After scoring each story the judge made a decision that the story was pessimistic, optimistic or neutral in tone.

Reliability: Three raters or judges scored all the stories. The first 25 were done by all three until mutual agreement was reached on
categories. A Kendall's coefficient of concordance, \( W = 0.8 \) was then reached on ten new cases rated independently by all three. Then each rater scored cases independently, keeping aside every tenth case, as well as all difficult cases, to be rescored and discussed at regular meetings, to maintain reliability. Finally, after all the stories were scored, they were divided among the three raters and scored once again, with difficult decisions done as a group.

**Hypotheses:** If there is a female "motive to avoid success" which can be expressed in "fear of success imagery" contained in stories written about successful women, as described above, then we would expect that:

1. **There should be a larger number of stories with at least one sentence expressing either negative attitudes about success, or negative consequences of success written about Anne than are written about John.**

2. **There should be a larger number of stories with a high percentage of sentences expressing either negative attitudes about success, or negative consequences of success, written about Anne, than are written about John.**

3. **There should be a larger number of stories denying the cue or denying effort written about Anne, than are written about John.**

4. **There should be a larger number of stories whose tone is pessimistic written about Anne than are written about John.**

In general, the women's responses should more frequently contain negative sentences, denial, and pessimistic tone than the men's responses.
On the other hand, if cultural expectations for women's performance is lower than the expectation for men's performance, then we should expect that both men and women will write stories higher in negative sentences, higher in denial, and higher in pessimistic tone for "Anne" than they write for "John".

**FINDINGS**

**Negative Sentences:**

1. Most of the stories written by all respondents, for both Anne and John cues, contained at least one negative sentence. In Horner's terms, the "fear of success imagery" was present. There was little difference by sex of the respondent, or by stimulus. (Table 1.) This finding runs counter to the expectation we had, based upon Horner's findings.

2. As shown by Table 2 the great majority of both men and women respondents wrote stories with 50% or fewer "negative" sentences. Men's stories about Anne and John had about the same proportion of negative sentences. The women's responses to John were similar to the men's, but fewer of the women wrote stories high in negative sentences about Anne than they did about John, or than the men did about either Anne or John.

   This finding runs counter to the expectation we had, based upon Horner's findings.

3. **Denial:** More men than women wrote "denial" stories. (39% of the men, 24% of the women) Equivalent proportions of men and women wrote such stories about John. However, the Anne stories were quite different from the John stories and differed between the two groups of respondents. The men were more likely to write denial stories about Anne than they did about John, and the women were less likely to do so. (Table 3)
TABLE 1

PRESENCE OF AT LEAST ONE NEGATIVE SENTENCE BY STORY AND SEX

a. FEMALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>No Negative</td>
<td>47</td>
<td>27</td>
<td>43</td>
</tr>
<tr>
<td>At Least one</td>
<td>128</td>
<td>73</td>
<td>117</td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>100</td>
<td>160</td>
</tr>
</tbody>
</table>

b. MALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>No Negative</td>
<td>43</td>
<td>24</td>
<td>57</td>
</tr>
<tr>
<td>At least one</td>
<td>135</td>
<td>76</td>
<td>130</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td>100</td>
<td>187</td>
</tr>
</tbody>
</table>
TABLE 2
PERCENTAGE OF NEGATIVE SENTENCES BY STORY AND SEX

a. FEMALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Negative Sentences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low*</td>
<td>93</td>
<td>73</td>
<td>96</td>
</tr>
<tr>
<td>High**</td>
<td>35</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100</td>
<td>117</td>
</tr>
</tbody>
</table>

\[ x^2 = 3.0503 \]
0.09 < p < 0.08

b. MALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Negative Sentences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>100</td>
<td>74</td>
<td>90</td>
</tr>
<tr>
<td>High</td>
<td>35</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>100</td>
<td>130</td>
</tr>
</tbody>
</table>

\[ x^2 = .768 \]
\[ p =~ .4 \]

*Low means that at least one, and up to 50% of the sentences in a story were negative in attitudes about success, or concerned negative consequences of success.

**High means that 60-100% of the sentences in a story were negative in attitudes about success, or concerned negative consequences of success.
TABLE 3
DENIAL*, CONTROLLING FOR SEX

a. FEMALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there Denial Theme?</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Yes</td>
<td>52</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>No</td>
<td>122</td>
<td>70</td>
<td>129</td>
</tr>
<tr>
<td>Total</td>
<td>174</td>
<td>100</td>
<td>157</td>
</tr>
</tbody>
</table>

\[ X^2 = 6.60 \]

\[ .01 \leq p \leq .001 \]

b. MALE RESPONDENTS

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>John-Med</th>
<th>Anne-Med</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there Denial Theme?</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Yes</td>
<td>56</td>
<td>32</td>
<td>84</td>
</tr>
<tr>
<td>No</td>
<td>121</td>
<td>63</td>
<td>101</td>
</tr>
<tr>
<td>Total</td>
<td>177</td>
<td>100</td>
<td>185</td>
</tr>
</tbody>
</table>

\[ X^2 = 6.70 \]

\[ .01 \leq p \leq .001 \]

*Did the story theme include denial of the cue, or denial of effort in attaining the goal?

**Total N is minus 7 cases, where data were ambiguous.
Proportionately, over twice as many men wrote denial stories about Anne as did women. (Table 4)

This finding runs counter to the expectations we had, based upon Horner's findings.

4. Tone: The group of women's stories were judged less pessimistic than the group of stories written by men. (Table 5) Moreover, while the men's stories were only slightly more likely to be rated pessimistic in tone when they wrote about John, as compared to Anne, the women's stories showed a greater difference, with the least proportion of stories judged pessimistic, when they were written by women about Anne, the Medical Student. (Table 5a)

This finding ran counter to our expectations based upon Horner's findings.

Summary

While most respondents wrote stories having at least one negative sentence, a smaller proportion of women respondents than men respondents wrote stories high in negative sentences, stories with denial themes, or stories judged pessimistic in tone.

Women were less likely to write high-negative, denial or pessimistic stories to the Anne stimulus, than to the John stimulus.

Men's stories about Anne and John were similar in the proportion of negative sentences and in tone. The men's stories were more likely to contain denial themes when they wrote about Anne than when they wrote about John. The men were more likely to write denial themes about Anne than were the women.
### TABLE 4

**DENIAL ELEMENTS IN THE ANNE STORIES BY SEX**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Was There a Denial Theme?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>84</td>
<td>45</td>
<td>28</td>
<td>18</td>
<td>112</td>
<td>33</td>
</tr>
<tr>
<td>No</td>
<td>101</td>
<td>55</td>
<td>125</td>
<td>82</td>
<td>230</td>
<td>67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>185</td>
<td>100</td>
<td>157</td>
<td>100</td>
<td>342</td>
<td>100</td>
</tr>
</tbody>
</table>

\[
X^2 = 38.58
\]

\[p < .001\]
### a. Female Respondents

#### Story Stem

<table>
<thead>
<tr>
<th>Tone</th>
<th>John-Ned Number</th>
<th>John-Ned Percent</th>
<th>Anne-Ned Number</th>
<th>Anne-Ned Percent</th>
<th>Total Number</th>
<th>Total Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimistic</td>
<td>78</td>
<td>45</td>
<td>54</td>
<td>34</td>
<td>132</td>
<td>39</td>
</tr>
<tr>
<td>Non-Pessimistic</td>
<td>95</td>
<td>55</td>
<td>105</td>
<td>66</td>
<td>200</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>173</td>
<td>100</td>
<td>159</td>
<td>100</td>
<td>332</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 4.08 \]

\[ .05 < p < .02 \]

### b. Male Respondents

#### Story Stem

<table>
<thead>
<tr>
<th>Tone</th>
<th>John-Ned Number</th>
<th>John-Ned Percent</th>
<th>Anne-Ned Number</th>
<th>Anne-Ned Percent</th>
<th>Total Number</th>
<th>Total Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimistic</td>
<td>87</td>
<td>49</td>
<td>84</td>
<td>45</td>
<td>171</td>
<td>47</td>
</tr>
<tr>
<td>Non-Pessimistic</td>
<td>91</td>
<td>51</td>
<td>103</td>
<td>55</td>
<td>194</td>
<td>53</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td>100</td>
<td>187</td>
<td>100</td>
<td>365**</td>
<td>100</td>
</tr>
</tbody>
</table>

*Were the stories judged pessimistic or non-pessimistic?*

**Total \( N \) is minus 3 cases where data were ambiguous.
Conclusions

The findings in this study do not support hypotheses based upon
Horner's findings and her conclusions that there is a "motive to avoid
success" which women display in "fear of success imagery". We may
conjecture that times have changed since her study was done, or that there
has been an increase in men's anxieties and/or a decrease in women's
anxieties about success in the interim, but we cannot draw such conclusions
based on these data. Nor can we conclude that there is a general cultural
expectation for a lower performance for women.

Despite wide popular acceptance and many citations to Horner's work,
we have been unable to find successful replications by others of the
original study. (Morgan and Mausner 1971) Horner's scoring scheme was used
by raters who knew the sex of the respondent by the story stem. There
may well have been bias accounting for Horner's original results. The
remainder of her original study has other technical flaws, which should
have made the acceptance of its conclusions extremely tentative.

---

2We may also consider the possibility that differing levels of creative
writing ability are being tapped.

3Two other unsuccessful attempts at two universities have also been
related in conversations with the senior author.

4When Horner compared the performance of women high and low in "fear of
success imagery", she used 30 subjects as their "own control" by a
post hoc decision to name "competitive condition" what she had originally
determined to be a neutral, assessment condition. (Horner 1968,
pp. 39-40, 111-112.)
Nonetheless, the "motive to avoid success" is accepted as a fact, discovered and proven, and is now working its way into standard sources as the conventional wisdom (Bernard 1973 pp. 773-794; Epstein 1973 pp. 912-935; Hochschild 1973 pp. 1011-1029; Horner 1972a, 1972b; Horner in Press a, in Press b; Papanek 1973 pp. 852-870).

Why did a weak study, which has not been replicated by other researchers, suddenly gain such currency? The "motive to avoid success" is a plausible concept, explaining the mystery of women's behavior when they do not reach their potential. Further, it is a concept acceptable to women for it comfortingly blames failure on an internalized set of cultural expectations. The conclusion only is picked up by professionals in an area in which there is little research. Failures to replicate are seldom published, and hypotheses temporarily invulnerable to the normal adversarial procedures of science quickly attain mythical status. The brief history of the Horner hypothesis should alert us again to the function of good methodology especially in controversial and newly popular areas of study.

The area of women's studies in the social sciences is too new, too important to be clouded by untested conclusions, no matter how fitting their catch phrases. There may well be a "motive to avoid success". So far, it's existence remains unproven.
REFERENCES


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APPENDIX

Horner states that her method of content analysis was as follows:

"A very simple present-absent scoring system was adopted for fear of success imagery. The stories were scored for Fear of Success if there was negative imagery expressed which reflected concern about the success. For instance:

a. negative consequences because of the success
b. anticipation of negative consequences because of the success
c. negative affect because of the success
d. instrumental activity away from present or future success, including leaving the field for more traditional female work such as nursing, school teaching, or social work.
e. any direct expression of conflict about success.

Also scored was evidence of

f. denial of the situation described by the cue
g. bizarre, inappropriate, unrealistic, or non-adaptive responses to the situation described by the cue." (Horner 1968, p. 105)