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"Women's will to fail" in a disjunctive reaction time competitive task

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Horner's "women's will to fail" hypothesis was tested with a disjunctive reaction time task, using students from a church-related college divided into three equal groups: tested alone (F), competing against a male confederate (F-M), and competing against a female confederate (F-F). Group F reacted significantly slower than F-F ($p < .01$) and F-M ($p < .05$), and Group F-M reacted significantly slower than F-F ($p < .05$). The hypothesis that women in a competitive task with a male do not perform as well as when competing with another female was supported.

Using the Thematic Apperception Test (TAT), Horner (1969) found that women, when placed in a hypothetical competitive situation with men, had lower achievement motive scores than when not competing with men. This finding first popularized the phenomenon known as "women's will to fail."

Horner postulated a "motive to avoid success," or fear of success, as a critical determinant of female achievement behavior, conceptualizing it as a component of the female personality resulting from internalization of sex-role norms early in development. As a result of much of Horner's (1969, 1972) research, it has been suggested that females have a tendency to become anxious when involved in achievement-oriented situations, especially when in competition with men.

Projective tests, such as the TAT, have been the primary means of isolating the different components involved in "women's will to fail" (Feather & Raphelson, 1974; Horner, 1972; Spence, 1974). One of these components, anxiety, has been found to increase considerably when women are placed in competitive situations with men: Durganand and Varma (1972) found that such subjects with a high index of anxiety had slower reaction times than low-anxious subjects, suggesting that reaction time was a sensitive measure of performance when women were placed in competitive situations with men.

In 1970, Hyatt, Cooper, and Allen (Note 1) employed reaction time as a measure of "women's will to fail" when in competition with men and found that women who competed against men had significantly slower reaction times than women who were tested alone and women who competed with other women. The present study is similar in most respects to the Hyatt, et al. study, but was conducted in the same setting 5 years later.

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METHOD

Subjects

The subjects were 24 female volunteers from an introductory psychology course taught at a midwestern church-related college. The subjects were randomly assigned to three groups, two experimental and one control, with members of the experimental groups competing against either a female (F-F) or male (F-M) confederate and with members of the control group (F) tested alone. Both confederates were freshmen at the same institution as the subjects but were not enrolled in the psychology course.

Apparatus

The apparatus was situated in two rooms; subjects were tested in the sound-deadened room. This room included a table placed so that the subjects sat side by side facing the wall during testing. When a subject and a confederate were competing, a plywood divider (44 x 62 cm) was placed between them, concealing the other person's hands, switches, and lights from view, but not his or her face. In front of each subject were two white 40-W lights, situated 44 cm from the front of the table where the subjects were seated and 33 cm apart. Two switches were located in front of each subject, one for each hand. Two speakers were mounted approximately 92 cm behind the subjects; one was a 35-cm Panasonic for transmitting instructions, the other was a 3-cm speaker through which the warning tone was audibly delivered at approximately 330 Hz.

The experimenter's room, adjacent to the sound-deadened room, contained the electromechanical programming equipment to automate the presentation of the tone and lights, two Stoelting 1/100-sec timers to record reaction time, and an Audiotronic reel-to-reel tape player to present recorded instructions.

Procedure

If the subject was to compete against either a male or a female, the confederate was in the waiting room when the subject arrived. They were both led into the laboratory, seated, and asked to pick up their respective switches, right switch in their right hand and left switch in their left hand. The experimenter left and from his room presented the following taped instructions: "Good evening. In back of you, you will hear a tone [tone]; within 5 sec from the sounding of that tone, one of the two lights in front of you will light up. If the light on your left lights up, you will respond by flicking your right switch as quickly as possible. If the light on your right lights up, you will respond by flicking your left switch as quickly as possible. To flick your switch, merely press it forward. You will then reset your switch when told to do so by pressing it back again. Remember, right light, left switch; left light, right switch. The

light will come on only during the time that the tone is sounding. You will be competing with the person next to you for the fastest time." A control subject was escorted into the room alone and given the same directions except for the final portion of the tape, in which she was told, "You will not be competing with anyone."

The subjects were then given 12 trials, the first two of which were practice trials and not counted. One of the two lights in front of each subject came on 3 to 5 sec after the warning tone and was randomly presented on the right or the left. If the reaction time on a particular trial was less than .15 sec or greater than 1.15 sec (as happened on a few trials), that trial was rejected and repeated. The intertrial interval was approximately 20 sec.

RESULTS AND DISCUSSION

The mean reaction time for Group F (.46 sec) was significantly slower than for Group F-F (.34 sec) [$t(14) = 3.64$, $p < .01$] and for Group F-M (.40 sec) [$t(14) = 2.07$, $p < .05$]. The difference between mean reaction times in Groups F-M and F-F was also significant [$t(14) = 2.15$, $p < .05$], indicating that females reacted slower when competing with a male than when competing with a female.

These results are similar to, but also somewhat different from, those obtained by Hyatt et al. (Note 1) using an auditory rather than a visual stimulus. In this earlier study, Group F-M reacted significantly slower than both Group F-F ($p < .01$) and Group F ($p < .05$), though Group F was significantly slower than Group F-F ($p < .01$). It is interesting to note, in light of the strong emphasis on women's liberation during the last 5 years, that the reaction time in Group F-M appears to have moved from a point significantly below the mean of Group F to a position intermediate between F and F-F. At least, this is one possible interpretation. In any event, it appears that performance is inhibited when some females are in competition with a male.

REFERENCE NOTE

1. Hyatt, F. A., Cooper, G. G., & Allen, J. L. *Motive to avoid success in a disjunctive reaction time competition task.* Unpublished manuscript, Spring Arbor College, 1970.

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