

ASSESSMENT OF THE EXISTENCE OF THE ANXIETY COMPONENT IN EVALUATION APPREHENSION

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The present study attempted to verify the existence of the arousal of anxiety which is supposed to accompany high evaluation apprehension. Two hundred and fifty subjects were randomly assigned to a high or low evaluation apprehension condition. Within each evaluation apprehension condition a different group of subjects was administered the state form of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970). Subjects took this anxiety scale before reading the background information sheet, after reading the background information sheet but before completing the photo-rating task or after reading the background information sheet and completing the photo rating task. Analysis of the photo-rating revealed the cueing effect with high evaluation apprehension subjects rating the photographs more positively than did low evaluation apprehension subjects. Analysis of the anxiety scores failed to reveal any significant differences. Consequently, the anxiety arousal that was postulated to have accompanied high evaluation apprehension was not supported. In light of this a positive self-presentation drive was proposed to account for the cueing effect.

A decade and a half ago Rosenberg explicated in a formal manner the definition and elaboration of the concept of evaluation apprehension. During the intervening years this concept has received general acceptance as noted by Rosenberg (1969:279) when he stated that “the best reinforcer I know is to have some theoretical term that one has coined be often quoted and then watch the quotation marks fade away as the term begins to enjoy some common usage”. These intervening years have not, however, been void of criticisms. Kruglanski (1975) has commented on the rather extreme post hoc interpretative laxity of this concept. Many diametrically opposed social psychological behaviors could be explained away by this concept. For example, attitude change could be viewed as either a sign of weakness or as a display of flexibility. As a result of this definitional flexibility, Kruglanski feels as though the evaluation apprehension motivation may not be present in the typical experiment. He supports this contention by his review of the literature presented by Rosenberg (1969) in support of the concept of evaluation apprehension. This review revealed that the only consistent result revealed by evaluation apprehension research was a cueing effect. As Kruglanski (1975) asserted, such a cueing effect is not in itself supportive of the effects of evaluation apprehension particularly since no consistent interaction existed between cueing and evaluation apprehension when these two variables were manipulated orthogonally.

Information such as this would seem to suggest that the concept of evaluation apprehension has been accepted before it has been adequately validated. This

conclusion is supported by the fact that, of the three components (Christensen, 1982) inherent in the definition and explanation of evaluation apprehension (cueing, anxiety, and expectancy), only one component (cueing) has been consistently demonstrated. The literature surrounding the anxiety component is, however, somewhat contradictory. Rosenberg's definition of evaluation apprehension states that the subject will experience "an active anxiety-toned concern" (1969:281) when he/she experiences evaluation apprehension. While this suggests that the individual will experience anxiety when evaluation apprehension is generated only two studies (Henchy & Glass, 1968; Rosenberg, 1969) have provided any support for such a contention. The bulk of evidence has failed to support such a contention using both self-report measures (Burkhart, 1975; Innes & Young, 1975; Minor, 1970; Turner & Simons, 1974) and physiological measures (Henchy & Glass, 1968). This failure to find support for the anxiety component may, however, be found in the procedures used by those studies which attempted to validate its existence. With the exception of the Henchy and Glass (1968) study, all of the studies assessed the anxiety component following completion of the experiment. To the extent that the anxiety component is ephemeral and fleeting, as perhaps suggested by Rosenberg's description of its being "anxiety-toned concerns", it may very well have dissipated by the time the researchers got around to measuring it. The anxiety component may indeed exist but exist predominantly during the beginning of the experiment when the evaluation apprehension is initially aroused. To assess more conclusively the existence of the anxiety component, such a possibility needs to be tested.

The present experiment was designed to assess the existence of the anxiety component when subjects are subjected to procedures designed to elicit evaluation apprehension. Subjects' anxiety level was assessed before, during and after conditions were administered which had previously been reported (Rosenberg, 1969) to have produced evaluation apprehension.

METHOD

SUBJECTS

Subjects consisted of 250 introductory psychology students of whom 176 were male and 74 were female. These subjects consisted of members of the introductory psychology "subject" pool. Their participation in the experiment accounted for one of their three required experimental hours of participation.

PROCEDURE

Subjects were tested in 10 separate groups of 25 subjects in the language laboratory at Texas A & M University. Upon arrival at the language laboratory subjects were instructed to be seated in one of the 25 designated places. After each subject had taken a seat he/she received a high or low evaluation apprehension Background Information Sheet, the state form of the Spielberger, Gorsuch, & Lushene (1970) State-Trait Anxiety Scale and a rating sheet.

The Background Information Sheet consisted of two forms, one for creating high and one for creating low evaluation apprehension. In an attempt to replicate Rosenberg's conditions as closely as possible, the content of the high and low evaluation apprehension communications corresponded as closely as possible to the examples presented by Rosenberg (1969:326-7). Subjects in both the high and low evaluation apprehension conditions were told that the experiment was investigating social perception. Subjects in the high evaluation apprehension condition were then told that prior research had revealed that poor social perception was associated with psychopathology. Initial research conducted by the writer had indicated that the

¹Three unsuccessful attempts were made during the course of a semester to obtain a copy of the Background Information Sheet.

present social perception task can identify college students who would be judged to be maladjusted. The subjects were also told that research had indicated that mature subjects show greater liking for strangers. Subjects in the low evaluation apprehension condition were told that they were serving as a control or standardization group and that their responses would be averaged to serve as a baseline. The baseline data would be useful as a frame of reference to judge the influence of other variables on social perception.

The rating scale was labeled the "Photo-Rating Scale" and consisted of 15 bipolar continuums ranging from *strongly dislike* (-10) to *strongly like* (+10). A photograph of each of 15 middle-aged men² was projected on to a screen for 15 seconds. The subjects were to rate each photograph on the rating scale in terms of how much they liked or disliked the person presented.

For all subjects the Background Information Sheet was always administered before subjects rated the photographs. However, the time of administration of the state form of the State-Trait Anxiety Inventory was varied across groups. The anxiety inventory was administered to a high and low evaluation apprehension group either before reading the Background Information Sheet and completing the photo rating, after reading the Background Information Sheet but before completing the photo rating with instructions to complete it as they felt when reading the Background Information Sheet or as they felt "right now", or after both the Background Information Sheet was read and the photo ratings were completed with instructions to complete it as they felt when reading the Background Information Sheet or as they felt "right now". This variation in time of administration of the anxiety inventory was considered necessary to be able to identify the point in time during which anxiety arousal may occur. It would also enable identification of any confounding influence which the anxiety scale may have had on the interpretation of the Background Information Sheet and on the subsequent photo ratings. The variation in instructions for completing the anxiety inventory for subjects who had read the Background Information Sheet was considered to be necessary to enable assessment of any differential anxiety that may have existed during and after reading the Background Information Sheet. It is possible that the anxiety arousal associated with evaluation apprehension is very ephemeral and fleeting. Therefore, it may be necessary to assess it while subjects are experiencing the conditions that should create the anxiety arousal. This would be the point in time at which subjects read the Background Information Sheet.

Following completion of these tasks subjects were administered a funnel-type post-experimental questionnaire patterned after Page (1973) to detect suspicion and awareness of the generation of a cueing effect. Subjects were then totally debriefed in the manner suggested by Mills (1965).

RESULTS

The subjects' ratings of the 15 photographs were summed to provide one overall algebraic sum for each subject which is in line with the procedure used by Rosenberg (1969:293). These ratings were then analyzed by the General Linear Models procedure where the three treatment effects were cueing (high or low evaluation apprehension), sex of subject, and time of administration of the anxiety scale (before cueing and ratings, after cueing but before ratings, after cueing and ratings). It was considered necessary to incorporate the dimension of time of administration of the anxiety scale into the analysis since it may have had an effect on the cueing component of the Background Information Sheet and/or influenced subjects' ratings of the photographs. The results of this analysis revealed a significant cueing effect, $F(1,238) = 13.18, p < 0.01$, and a significant sex of subject effect, $F(1,238) = 4.13, p < 0.05$.

²The originals were obtained from Rosenberg and duplicates were made of them.

The time of administration of the anxiety scale did not produce a significant effect, indicating that it did not influence the photo ratings.

The significant cueing effect revealed that the subjects who were administered the high evaluation apprehension condition rated the photographs as significantly more likeable ($M = 29.98$) than did subjects administered the low evaluation apprehension condition ($M = 17.90$). Such a finding replicates the cueing effect which has been consistently revealed by Rosenberg and others. The significant sex effect revealed that males rated the photographs significantly lower ($M = 21.04$) than did females ($M = 30.68$). The differential responding of males and females has also been demonstrated by Rosenberg (1969).

Since the above analysis has revealed that a cueing effect does exist in the data, the subjects' State Anxiety scores on the Spielberger State-Trait Anxiety Inventory were analyzed to determine if subjects exhibited an aroused state of anxiety. Subjects' scores on level of State anxiety were analyzed by a General Linear Models procedure. The treatment effects were cueing (high and low evaluation apprehension) and time of administration of the anxiety scale (before cueing or ratings, after cueing with instructions to rate the state form as they feel "right now", after cueing with instructions to rate the state form as they felt when reading the Background Information Sheet, after cueing and ratings with instructions to rate the state form either as they feel "right now" or as they felt when reading the Background Information Sheet). These different points in time were selected to enable the detection of any differential level of anxiety that may have occurred during the course of the experiment. The results of this analysis revealed no significant effects. This suggests that the subjects did not demonstrate increased anxiety as a result of the high evaluation apprehension instructions and that the differential effect of the two Background Information Sheets was operative only on cueing. Apparently the low evaluation apprehension Background Information Sheet did not "...eliminate any tendency toward evaluation apprehension..." as suggested by Rosenberg (1969:326), or the presumed "anxiety-toned response" which supposedly occurs when the subject approaches the experiment and reads the high evaluation apprehension Background Information Sheet does not exist.

To determine which of these possibilities does exist the norms presented by Spielberger et al. (1970) were compared with the scores of subjects in this study who received the anxiety scale before reading the Background Information Sheet or completing the photo ratings.

This group of subjects was selected because their anxiety scores would most accurately represent the level of state anxiety of subjects who had just entered an experiment. These subjects had an overall mean state anxiety score of 35.82, with females having a mean state anxiety score of 31.7 and the mean for males being 37.1. The norms presented by Spielberger et al. (1970, p. 8, Table 3) reveal that females have a mean state anxiety score of 35.12 and males have a mean of 36.35. Such similarity in scores would seem to lend support to the notion that experimental subjects who read the high evaluation apprehension Background Information Sheet do not demonstrate "anxiety-toned arousal". This is given additional support by the fact that subjects under stressful conditions exhibit higher state anxiety scores than revealed by the subjects in this experiment. Spielberger et al. (1970, p. 11, Table 8) has revealed that examination stress raises the average state anxiety scores to 43.01 for males and 43.09 for females. Watching a stressful movie raised the state anxiety scores even further (mean = 50.03 for males; mean = 60.94 for females). The state anxiety scores of subjects in this experiment were much lower. Consequently, the failure to find a significant effect when analyzing the anxiety scores appears to be due to the lack of arousal on the part of the high evaluation apprehension condition. This conclusion would seem to be contradicted somewhat when considering the data obtained from question 13 of the postexperimental questionnaire. This question attempted to duplicate one used by Duncan, Rosenberg, & Fenkelstein (1969) which, according to them "...related to the effectiveness of the EA manipulation" (p. 214). This question had subjects rate the Background Information Sheet on a 1 to 6 scale with the lower positions representing the

“Anxiety Arousing” end of the scale and the higher positions representing the “Reassuring” end of the scale. Although Duncan et al. used this scale to eliminate subjects whose ratings were inconsistent with the experimental condition they were in, it would seem to be more appropriate to compare the ratings of high and low evaluation apprehension subjects to see if they evaluated the Background Information Sheet differently. When the ratings of subjects in these two conditions were compared a significant difference was found, $t(241) 2.24, p < 0.05$, with subjects in the high evaluation apprehension condition expressing more “anxiety arousing” scores ($M = 3.64$) and low evaluation apprehension subjects having more “reassuring” ratings ($M = 3.96$). Such data would seem to indicate that subjects report greater anxiety in the high versus the low evaluation apprehension condition which contrasts with that found on the Spielberger State Anxiety Inventory. However, there seems to be a basic difference in the subject’s orientation on the two measures. The Spielberger State Anxiety Inventory requires subjects to evaluate themselves on anxiety, whereas the postexperimental question asked subjects to evaluate the Background Information Sheet. The data, therefore, seem to reveal that subjects in the two conditions report identical amounts of anxiety but attribute greater amounts of anxiety arousal to the high evaluation apprehension Background Information Sheet. The important point seems to be that subjects do *not* experience the increased anxiety arousal they attribute to the high evaluation apprehension condition Background Information Sheet.

DISCUSSION

The results of this study reveal that subjects given a high evaluation apprehension Background Information Sheet rate photographs significantly higher than do subjects given a low evaluation apprehension Background Information Sheet. However, there is no significant difference in the level of anxiety reported by subjects in the two conditions. Such results support Kruglanski’s (1975) conclusion that the evaluation apprehension manipulations can be reduced to a cueing effect.

One might suggest that the failure to support the anxiety component was due to the fact that it is an ephemeral and “fleeting” response tendency since Rosenberg discussed it as an “anxiety-toned” response. Therefore, it may dissipate quickly, particularly once a response strategy had been adopted, and would escape detection. This is a definite possibility but one which would seem to have been controlled for in this study by use of the Spielberger State Anxiety Inventory. Spielberger conceptualized state anxiety “...as a transitory emotional state or condition of the human organism...” (1970:3). This is the type of anxiety which Spielberger attempted to measure with the State Anxiety Scale. It should, therefore, seem to be capable of identifying any transient anxiety which may occur when evaluation apprehension is aroused. Additionally, a state anxiety measurement was taken on subjects as they read the Background Information Sheet. This measurement should have maximized the possibility of identification of any arousal in anxiety. Yet this measurement did not differ from any of the others in terms of anxiety. Therefore, when the data from the present study are combined with the data from other studies (e.g., Innes & Young, 1975) that also fail to support the existence of the anxiety component, it seems difficult to reach a conclusion other than one which suggests that subjects do not show any added increment of anxiety when exposed to high evaluation apprehension conditions. Such evidence, combined with the fact that the expectancy component of evaluation apprehension has also failed to receive support (Christensen, 1982), leads one to the logical conclusion that cueing is the only real component which pervades evaluation apprehension since this is the only component that has been consistently identified and replicated.

Therefore, it seems appropriate to conclude that subjects do *not* approach the psychological experiment with the expectation that their mental health will be evaluated, nor do they become anxiously concerned that they make

emotionally healthy responses. The question then becomes "How do subjects approach the psychological experiment?" There are a number of studies which seem to provide evidence suggestive of a general orientation.

If one looks at the literature on subjects' motives (Christensen, 1977; Sigall, Aronson, & Van Hoose, 1970; Rosnow, Goodstadt, Suls, & Gitter, 1973) and self-presentation (Goffman, 1969, 1971; Jones, 1973; Schlenker, 1975; and Schneider, 1975) it becomes quite obvious that subjects are motivated to present themselves in the most positive manner. This means that subjects will use the demand characteristics (Orne, 1962) of the experiment to identify the most positive way of responding and then respond in the manner that will make them look most positive. The logic of this approach would seem to reside in a self-serving bias which appears to exist in human behavior (Bradley, 1978). Subjects desire to appear positive and therefore search for ways to fulfill this desire. Consequently, subjects are not engaged in a sheep-like conformity to demand characteristics but actively utilize cues that enable them to alter their behavior to appear most positive. Such an orientation would explain the strong cueing effect found in evaluation apprehension studies. Subjects enter the experiment with the motive to appear positive. In the typical evaluation apprehension study the subject is given an explanation (typically false) of the purpose of the study and a blatant cue as to how to respond to appear most positive. Therefore, the subject can then satisfy his/her positive self-presentation drive by responding in a manner consistent with the cue.

Such an explanation is given additional support by Gustafson and Orne (1965). They found that subjects who were told that they were performing in a desirable manner (e.g., successfully deceiving the experimenter in a lie detection situation) produced small subsequent GSR responses. Often a very flat GSR record was obtained (Gustafson & Orne, 1965:146). On the other hand, subjects who were told that they were performing in an undesirable manner (e.g., not successful in deceiving the experimenter with the implication of their having little control and low intelligence) produced higher GSR readings on subsequent trials. In other words, if subjects know they are performing in a desirable manner (accomplished by cueing in the evaluation apprehension procedure) they are relaxed because they are satisfying their desire for positive self-presentation. However, if they find out that the responses they are making are undesirable, this counters their drive for positive self-presentation.

Consequently, the present study and others suggest that the subject, upon entering the experiment, actively searches for cues that will assist him/her in identifying the most desirable response to enable the drive for positive self presentation to be satisfied. If this response is identified the subject proceeds to give this response in a relaxed and continuous manner. However, if feedback is received indicating that the response is undesirable, emotional arousal occurs and motivates the subject to identify another response that will provide positive self-presentation.

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