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Investigating a Critical Evaluation Tendency in Social Anxiety.

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Abstract

Models of social phobia suggest that socially anxious individuals have critical evaluation expectancies, expecting others to be inherently critical in their appraisal of performance. One potential source for these expectancies is generalization or projection of an individual's own critical evaluation tendencies. We recruited 89 students, informing them that they would be asked to deliver an impromptu speech. Participants were shown three short pre-recorded speeches and asked to rate the performance of the speaker in each. Participants were also asked to rate how well they thought they would perform. While social anxiety symptoms were correlated with predictions of poorer self-performance, the relationship between social anxiety symptoms and a tendency to more critically appraise the performance of others was only observed for speakers who displayed low levels of anxiety symptoms.

KEYWORDS: Social Phobia, Cognitive Models, Critical Evaluation, Social Anxiety

1. Introduction

Social anxiety disorder is a prevalent, chronic anxiety disorder in which individuals experience excessive, unreasonable anxiety when exposed to social and performance situations (American Psychiatric Association, 2000; Keller, 2003). The disorder impacts significantly on an individual's social and occupational functioning (Schneier et al., 1994), as well as their quality-of-life (Hambrick, Turk, Heimberg, Schneier & Liebowitz, 2003; Lochner, Mogotsi, du Toit, Kaminer, Niehaus & Stein, 2003). There has been growing research interest (Boschen, in press), as well as considerable recent advances in the understanding of the cognitive and behavioural processes involved in the etiology (Rapee & Spence, 2004) and maintenance (Rapee & Heimberg, 1997) of the condition. Despite this, it is known that many individuals treated for social anxiety problems experience incomplete recovery (e.g., Juster & Heimberg, 1995), and therefore that there is room for improvement of our understanding and treatment of the disorder, and the processes thought to underlie it.

One cognitive phenomenon thought to play an important role in social anxiety disorder is the expectancy that others are critical evaluators of performance (Clark & Wells, 1995; Hirsch & Clark, 2004; Rapee & Heimberg, 1997). This *Critical Evaluation Expectancy* (CEE) is common to cognitive (e.g., Rapee & Heimberg, 1997), psychodynamic (e.g., Gabbard, 2005), and interpersonal (e.g., Alden & Taylor, 2004) models of social anxiety. Despite its recognition by multiple schools of therapeutic intervention, it is unclear from where these expectancies emerge. Rapee and Spence (2004) outlined a model of the etiology of social anxiety disorder, in which the influence of aversive childhood experiences such as bullying were deemed important in the genesis of cognitive factors such as CEE.

An alternative source for development of CEE is from the individual's own internal experience. Individuals with high levels of social anxiety may expect critical evaluation from others because they themselves have a *Critical Evaluation Tendency* (CET), expecting or demanding a high level of performance from those around them. Psychodynamic models, for instance, may suggest that CEE emerges from an internalised representation of critical others which is then "repeatedly projected onto persons in the environment" (Gabbard, 2005, p263). To date, limited research has examined this possibility.

Rapee & Lim (1992) compared evaluations given by socially anxious and non-anxious individuals of performance in a public speaking task. Participants were assembled in small groups of six to eight participants, and each asked to give an impromptu speech. Participants rated their own speech, as well as the speech of each other group member. Although it was not the primary focus of their study, the researchers reported that there was no difference between socially anxious and non-anxious participants on their ratings of the speech performance of others. This study was laudable in that it assessed evaluations under a condition of increased social anxiety (shortly before or after giving a speech), although this was not uniform across participants. Despite its strengths, the method used by Rapee & Lim (1992) was not designed to assess for a CET in socially anxious participants. The use of different speeches (in different groups) as the source for ratings, rather than a standardised measure is problematic, and was not controlled statistically in this work.

Roth, Antony & Swinson (2001) examined the interpretations of manifest anxiety symptoms by individuals with social phobia and non-anxious controls. Socially anxious participants were more likely to expect that their manifest anxiety symptoms would be attributed by others to psychiatric conditions or intense anxiety.

There were no differences, however, between socially anxious and non-anxious individuals in how they themselves would interpret manifest anxiety in others. Unlike Rapee and Lim (1992), however, the measurement for this study was not conducted under a condition of elevated social anxiety, and therefore was potentially taken in the absence of activation of social anxiety schemas. Taken together, the results of Roth et al. (2001) and Rapee & Lim (1992) suggest that CEE is not associated with CET.

We aimed to advance the previous research in the area in three important ways. Firstly, we intended to develop a method specifically to test the relationship between social anxiety and critical evaluation. We developed standardised, pre-recorded speeches of varying quality. Secondly we aimed to conduct our measurement under conditions of elevated anxiety by informing all participants that they may themselves be required to present a speech. Thirdly, we used speeches of different quality, with some speakers showing high levels of manifest anxiety, and others presenting their material in a confident, enthusiastic manner. Each of these developments is presented as a logical advance from the earlier method of Rapee & Lim (1992).

Three *a priori* hypotheses were generated prior to commencement of the research. Firstly, in line with previous research, we predicted that individuals high on measures of social anxiety would also evidence more negative prediction of their own expected performance. Secondly, we hypothesised that individuals who expected that they would perform poorly on the speech task would also be more critical in their evaluation of the sample speeches (i.e., that some individuals are generally more critical). Thirdly, we proposed that socially anxious individuals would be more critical than non-anxious participants in their evaluation of the three sample speeches.

2. Method

2.1 Participants

Participants consisted of 89 (11 male and 78 female) undergraduate psychology students, almost all ($n = 86$) receiving partial course credit in return for participation. Participants were predominantly Caucasian ($n = 74$), with the sample also consisting of Australian Aboriginal ($n = 1$), Black/African/Caribbean ($n = 3$), Asian ($n = 8$), and Other ($n = 3$) backgrounds. Ages ranged from 17 to 55 years ($M = 25.27$, $SD = 10.48$). Three participants indicated that they were currently receiving treatment or had been treated for social anxiety disorder in the past.

2.2 Materials

2.2.1 Videotapes of speech performances. Three video recordings were filmed for this study. Each recording depicted a different male speaker delivering a three-minute speech. Males were used for all of the stimulus materials to ensure that gender of the speaker was not an experimental confound. Each of the three speeches was delivered in a distinctly different manner. Speech number one was delivered in a confident but subdued manner, with minimal movement or expression, with the speaker talking about Australian football teams. Speech number two showed an individual who was extremely nervous and fidgety delivering a speech on the symptoms of obsessive compulsive disorder, and making several mistakes during the speech delivery. Speech number three was delivered by an individual who was confident, enthusiastic and energetic. The content of speech number three was information about the study of statistics in undergraduate psychology. The video speeches were played for participants in series, and time was allowed for the completion of the PSP rating scales. Presentation of speeches was counterbalanced, with approximately one-third of the participant group seeing the speeches in each possible sequence.

2.2.2 *Perception of Speech Performance* (PSP, Rapee & Lim, 1992). The PSP is a 17-item scale which was developed to measure/evaluate public speaking performance using both global (e.g., “kept audience interested”) and specific (e.g., “maintained eye contact with audience”) items. Two modified versions of the scale were utilised: the PSP-Self and PSP-Other (for self-rating and observer-rating, respectively). Although the items were identical to those used in the original PSP, the instruction set was varied to obtain measures of how the participant rated the videotaped speeches (PSP-Other, “We would like you to rate *the speaker* you just heard on the features below”) and how the individual anticipated they would be rated by others in the event that they were required to give a speech (PSP-Self, “We would like you to rate *how you think others will rate your speech* on the features below”). Responses on the modified PSP scales were measured on a 5-point Likert-type scale ranging from 1 (‘not at all’) to 5 (‘very much’). Cronbach’s alpha for the PSP-Self and the PSP-Other in the current study indicated good internal consistency ($\alpha = .89$ and $.82$, respectively).

2.2.3 *Social Phobia Scale* (SPS; Mattick & Clarke, 1998) was used to assess the anxiety and fear associated with the prospect of being observed by others while undertaking certain activities (e.g. eating, drinking, writing; Harb, Eng, Zaidler, & Heimberg, 2003). The SPS consists of 20 items (e.g., “I become anxious if I have to write in front of other people”) measured on a Likert-type scale. Responses range from 1 (‘not at all true of me’) to 5 (‘extremely true of me’). Higher scores on the SPS indicate greater performance anxiety. Internal consistency is high ($\alpha = .89$), and four-week test-retest reliability was excellent ($r = .91$; Mattick & Clarke, 1998). Cronbach’s alpha on the SPS in the current study indicated very good internal consistency ($\alpha = .91$).

2.3 Procedure

Participants attended in small groups and were informed that they would be required to complete a series of questionnaires, and provide ratings of recorded speeches. In addition, participants were told that a random selection of individuals would be asked to give an impromptu speech, and have it rated by the group. Participants were not told how many of them would be required to give such a speech. This was designed to increase state-anxiety, and activate schematic themes (and expectancies) associated with performance situations. Participants were given time to complete the questionnaires, including the PSP-Self. The video series of three short speech performances were presented to participants using a data projector, at 'life-size'. Each speech was then rated according to the criteria on the PSP-Other. After completion of all ratings participants were advised that they would not be required to present any speeches, and debriefed.

3. Results

3.1 Descriptive Data and Data Cleaning

There were 14 missing data points, which were replaced with the modal response from each participant for the relevant scale to which it belonged. Inspection of missing data did not suggest any systematic problems with measurement tools or methods, and missing data appeared randomly distributed. Figure 1 shows the descriptive information for each of the speech performance ratings. Participant scores on the SPS has a mean of 18.52 ($SD = 13.07$).

3.2 Hypothesis Testing

Hypothesis 1 was tested by examining the bivariate correlation between social anxiety symptoms (measured by the SPS) and the rating of expected speech performance evaluation. The correlation of $r = -.54$ ($n = 88, p < .001$) demonstrated

that those who had higher levels of social anxiety symptoms also predicted that their speech performance would be poorer.

Hypothesis 2 was investigated by examining the correlation between the rating of expected performance evaluation and the mean rating across the three sample speeches. The correlation of $r = .23$ ($n = 88$, $p < .05$) demonstrated a significant relationship whereby people who expected poor speech performance in their own speech, were also more critical of the performance in the sample speeches. When the three speeches were examined separately, there was a significant correlation between expected evaluations and speech number three ($r = .22$, $p < .05$), but not speech number one ($r = .12$, $p > .05$) or two ($r = .19$, $p > .05$).

Hypothesis 3 was assessed firstly by examining the correlation between social anxiety symptoms and the mean performance rating of the three sample speeches. The relationship between these was not significant ($r = -.20$, $p > .05$), indicating that social anxiety symptoms were not associated with more critical evaluation of the performance of others. When only socially anxious participants were included (i.e. those above the 75th percentile on the SPS) the relationship remained non-significant ($r = -.03$, $p > .05$). When the three speeches were examined separately, there was a significant correlation of social anxiety symptoms with speech number one ($r = -.23$, $p < .05$) and three ($r = -.23$, $p < .05$), but not speech two ($r = -.04$, $p > .05$).

4. Discussion

We hypothesised that social anxiety symptoms would correlate with critical expectations about one's own performance; that individuals who were critical of their own speech would also be critical of others; and that socially anxious individuals would be more critical evaluators. Our first hypothesis was strongly supported by the correlation between social anxiety symptoms and participants' predictions of their

own speech performance. Our second hypothesis was less strongly supported, with a significant, but weak, correlation between ratings made of the standard videotaped speeches and prediction of the participant's own performance. When each of the different quality speeches were separately investigated, this correlation remained significant only for the speech delivered by the confident, enthusiastic speaker. The tendency for socially anxious individuals to also be critical evaluators was supported by the current investigation only for speeches delivered by enthusiastically confident and confident, but more subdued, speakers, but not for a speech delivered poorly by a nervous individual.

Taken together, our results support previous research suggesting that socially anxious individuals expect more negative evaluation of their own performance than non-anxious individuals (e.g., Rapee & Lim, 1992). Our results also suggested that the relationship between social anxiety symptoms and CET may be more complex than suggested by earlier research such as Rapee & Lim (1992) and Roth et al. (2001). Rapee & Lim reported that individuals with social anxiety disorder were no more critical in the evaluation of others than those without social phobia. Our study, however, suggests that while there may be no uniform CET in individuals with elevated social anxiety symptoms, there may be certain conditions under which a CET may be revealed. Our findings suggested that such a CET may be observed in socially anxious individuals when the person being evaluated is performing adequately or well, but not when their performance is poor.

The reasons for this specific emergence of the CET when rating speeches of different quality is not clear from the current research. Two possibilities, however, may be worth considering: One is that individuals with social anxiety may be generally critical evaluators, but that this critical evaluation tendency is attenuated

when evaluating individuals with manifest anxiety symptoms. Evaluating another individual poorly due to anxiety symptoms may be threatening to an individual with social anxiety as it raises the possibility that others may also be critical of such anxiety symptoms when exhibited by them. This would lead to an increased probability of negative evaluation under conditions of perceived audience (Rapee & Heimberg, 1997). A second possibility is that manifest anxiety symptoms in the anxious speaker were obvious to all evaluators, while perceived errors and flaws in the other two speeches were only attended to by anxious speakers. This may be the result of the activation of social anxiety schemas by the impending speech task, leading to increased attention towards indications of anxiety in the speaker. Unfortunately, our experimental design is not capable of assessing these hypotheses.

4.1 Implications of the Current Research

The results of this study have several implications for the understanding and treatment of social anxiety. Our observations demonstrate that individuals with high levels of social anxiety are not consistently more critical of the performance of others, even when their social anxiety schemas are activated by an impending performance task. Our results support the idea that the CEE and CET are separate, differentiable phenomena.

The independence of the CEE and CET suggests that the development of a tendency to expect critical appraisal of performance by others is not likely to arise out of one's own tendency to be critical. Our findings do not accord with the idea that psychodynamic mechanisms such as projection explain the origin of the CEE. Rather than the CEE emerging from projected CET, it appears better conceptualised as a specific self-schema, independent of one's own tendency to be critical of others. Our

findings suggest that in future, researchers need to look elsewhere for the origins of the CEE.

Several limitations should be noted when considering the current study. Firstly, our sample was drawn from a student population rather than a group of individuals with a diagnosed social anxiety disorder. As such we are unable to conclude that findings would be replicated in a group of people with a clinical level of social anxiety symptoms. Secondly, we did not assess for the effectiveness of our effort to induce an increase in social anxiety by informing participants that they would be required to make a speech. Thirdly, we did not attempt to assess current depression or anxiety symptoms, and as such are unable to rule these out as confounds. Fourthly, the PSP-Self and PSP-Other were scales derived from an earlier measure, and although they had strong internal consistency in our current study, as well as clear instruction sets to guide the participants' responses, the findings of the current study may be strengthened if independent assessment of the validity of these scales were conducted. Fifthly, the content of each of the three speeches was not consistent, and this may have introduced a minor confound to our results.

Investigation of the origins of the CEE is suggested as a potentially fruitful avenue of research. The tendency to expect critical evaluation of one's performance by others is a crucial component of cognitive and other models of social anxiety disorder. The elucidation of the origins of these may yield important information to assist with prevention and treatment programs. Longitudinal studies, for example, which examine children over the critical periods of schooling may be useful in identifying at which age, and in response to which events, the CEE arises. This would allow a more thorough evaluation of Rapee & Spence's (2004) hypotheses around the etiology of the CEE in particular, and social anxiety generally. If the hypothesis that

the CEE arises in childhood from such adverse events as bullying, it would lend further support to the provision of resilience programs for at-risk children.

4.2 Conclusion

These results suggest that the critical evaluation expectancy observed in social anxiety is not likely to derive from any tendency to be critical of the performance of others. Further research is required to determine whether the self-specific critical tendency may be associated with events such as criticism and bullying in childhood and adolescence, as suggested by authors such as Rapee & Spence (2004).

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Figure Captions

Figure 1. Ratings of speech performances for the full sample, and for high and low quartiles on social anxiety symptoms

Author Note

The current study was conducted as part of the Bachelor of Psychology (Honours) dissertation of the second author, under supervision of the first author.