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DSM-III-R Subtypes of Social Phobia: Comparison of Generalized Social Phobics and Public Speaking Phobics

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Abstract

Social phobic patients who fear most or all social interaction situations are labeled *generalized* social phobics in DSM-III-R. Thirty-five patients who met this criterion were compared with 22 social phobic patients whose fears were restricted to public-speaking situations. Generalized social phobics were younger, less educated, and less likely to be employed, and their phobias were rated by clinical interviewers as more severe than those of public-speaking phobics. Generalized social phobics appeared more anxious and more depressed and expressed greater fears concerning negative social evaluation. They performed more poorly on individualized behavioral tests and differed from public-speaking phobics in their responses to cognitive assessment tasks. The two groups showed marked differences in their patterns of heart rate acceleration during the behavioral test. The implications of these findings for the classification and treatment of social phobic individuals are discussed.

Social phobia is defined as a “persistent fear of one or more situations (the social phobic situations) in which the person is exposed to possible scrutiny by others and fears that he or she may do something or act in a way that will be humiliating or embarrassing” (American Psychiatric Association, 1987, p. 241). Since its appearance in DSM-III, several studies

have validated its existence as a diagnostic entity, distinct from other anxiety disorders (Heimberg and Barlow, 1988; Heimberg et al., 1987a). Social phobics differ from agoraphobics on gender, marital status, social class, age of onset of symptoms, and age of first treatment (Amies et al., 1983; Marks, 1970). They are more fearful of scrutiny, more likely to experience blushing and muscle twitching, and more likely to report habitual alcohol abuse and suicide attempts (Amies et al., 1983) but less likely to be depressed (Heimberg et al., 1989). Unlike agoraphobic or panic disorder patients, social phobics have shown little response to challenge with sodium lactate (Liebowitz et al., 1985a) or carbon dioxide (Rapee et al., 1986).

While these studies support the validity of social phobia as a diagnostic category, they do not address the heterogeneity of individuals who receive the diagnosis. It is typically applied to individuals with fears of speaking or performing in public, using public lavatories, eating or drinking in public, and writing in the presence of others. It is also given to individuals with multiple social fears (Spitzer and Williams, 1985), and DSM-III-R describes a *generalized* subtype of social phobia in which the individual fears all or most social situations. It is unclear whether generalized social fears and more specific fears such as public speaking or eating in public should be placed in the same diagnostic category. It is our impression from several years of conducting treatment outcome research with social phobics (Heimberg, 1986; Heimberg et al., 1985b, 1987a, 1987b) that public-speaking phobics are less impaired by their fears than individuals with generalized social phobias. Spitzer and Williams (1985) also suggest that public-speaking phobics have less associated personality pathology.

A recent examination of public-speaking fears and generalized social anxiety in a non-clinical population showed that there is a distinct group of subjects who fear and avoid public-speaking situations but report little anxiety in other social situations (McNeil and Lewin, 1986). These investigators surmise that public-speaking fear may be conceptualized as a simple phobia rather than a type of social phobia. However, there has been no empirical comparison of *patients* who differ in the locus of their social fears. In this study, we compared the responses of generalized social phobics (as defined by DSM-III-R) to those of social phobic patients whose fears are specific to public-speaking situations on a series of self-report, behavioral, and physiological measures.

Methods

Subjects

Subjects were 24 women and 33 men who sought treatment at the Center for Stress and Anxiety Disorders, University at Albany, State University of New York, for social anxiety in a variety of situations including general social interactions and public speaking. All subjects were screened with the Anxiety Disorders Interview Schedule (ADIS; DiNardo et al., 1983) or its recent revision (Barlow, 1985) and received a primary diagnosis of Social Phobia according to DSM-III criteria. The ADIS is a structured interview with demonstrated reliability for the diagnosis of anxiety disorders ($\kappa = .91$ for social phobia; Barlow, 1985). Diagnostic interviews were conducted by clinical psychologists or advanced doctoral students. In addition to determining diagnosis, the ADIS interviewer also rated each

subject on the Phobic Severity Rating Scale (Watson and Marks, 1971). Only subjects exhibiting moderate to severe impairment in daily functioning, as indicated by a severity rating of 4 or greater on the 0 to 8 scale, participated in the study (5.58 ± 1.07 [$\bar{X} \pm SD$]).

One of the authors (C. S. D.), an advanced doctoral student acquainted with each subject through her role as therapist or assessment interviewer, reviewed each subject's file and classified his or her social phobia as "specific" (fear and avoidance was limited to certain circumscribed situations such as speaking or writing in public) or "generalized" as defined in DSM-III-R (almost any social situation was a phobic event). The senior author independently reviewed the subtype classifications and agreed on 100% of these decisions.

Although potential subjects with a wide variety of specific social phobias including fears of writing in the presence of others, using public restrooms, eating in public, using the telephone, and speaking in public sought treatment at our project, only the latter presented in sufficient numbers to warrant inclusion in the study. Thus, our final sample consisted of 35 generalized social phobics (16 women and 19 men) and 22 public-speaking phobics (8 women and 14 men).

The data presented here were drawn from the extensive assessment procedure completed by all subjects before entering treatment. This pretreatment assessment included a battery of self-report questionnaires and various measures derived from a behavioral challenge that utilized a simulation of a personally relevant anxiety-provoking situation.

Self-Report Questionnaires

In addition to providing demographic and background information, each subject completed several questionnaires concerning anxiety. These included five measures of various aspects of social-evaluative anxiety: the Social Avoidance and Distress Scale (SADS; Watson and Friend, 1969), the Fear of Negative Evaluation Scale (FNE; Watson and Friend, 1969), the Personal Report of Confidence as a Speaker (PRCS; Paul, 1966), the Social Phobia subscale of the Fear Questionnaire (FQ; Marks and Matthews, 1979), and the Social Interaction Self-Statement Test (SISST; Glass et al., 1982). The trait portion of the State-Trait Anxiety Inventory (STAI; Spielberger et al., 1970) was used to assess generalized anxiety. Subjects also completed the Beck Depression Inventory (BDI; Beck et al., 1961).

Behavioral Challenge

All subjects participated in a behavioral simulation of an anxiety-provoking situation. Simulations were designed on the basis of questionnaire data and initial interviews to recreate a situation that typically evoked high levels of anxiety for each individual. For the generalized group, simulations included such situations as initiating a conversation with a member of the opposite sex at a party or making conversation with a coworker. The public-speaking phobics made presentations on topics similar to those on which they were likely to speak in their feared situation. Thus, patients in each group were presented with a behavioral challenge in a situation similar to that for which they requested treatment. Graduate and undergraduate assistants served as role-play partners and audience members.

Before each simulation, subjects were escorted to a private office to be fitted with the heart rate monitoring equipment described below and to prepare for the simulation. Fol-

Following a 3-minute adaption period for the heart rate assessment, the experimenter described the scenario for the upcoming simulation and asked the subject to think about it for 3 minutes. Immediately after this "anticipatory phase," subjects were taken to another room in which the audience or role-play partners were already waiting. Subjects had been previously informed that the simulation would be videotaped (and gave their informed consent), and this room contained video recording equipment in full view of the subject. The second phase of the simulation, referred to as the performance phase, consisted of the 4-minute role-play. Immediately after the simulation, subjects completed the state anxiety portion of the STAI and the thought listing and simulation ratings described below.

Subjective anxiety

Subjects reported their subjective anxiety in anticipation of and during the behavioral challenge on the 0 to 100 Subjective Units of Discomfort Scale (SUDS) developed by Wolpe and Lazarus (1966). Subjects were prompted for their ratings at 1-minute intervals, resulting in three anticipatory and five performance SUDS ratings.

Heart rate

Subjects' physiological arousal during the behavioral challenge was assessed with a portable heart rate monitor (Exersentry III, Model 51330, by Respirationics, Inc.) as described in our previous work (Dodge et al., 1988; Heimberg et al., 1985b; Heimberg et al., 1987c). Heart rate was calculated in beats per minute. To control for baseline variability, heart rate reactivity was calculated by subtracting the mean adaption period heart rate from each sample of heart rate data collected during the simulation performance. Five 30-second samples were collected, including the first 30 seconds of the simulation and the 30 seconds surrounding each subsequent SUDS rating given by the subject.

Thought listing

Cognitive activity in response to the challenge was assessed with the thought listing procedure used previously with socially anxious college students (Cacioppo et al., 1979; Heimberg et al., 1985a, 1987d). Immediately after the simulation, subjects were given prepared forms and asked to record the thoughts they experienced during the performance phase, ignoring spelling, grammar, and punctuation. Trained graduate assistants, unaware of the hypotheses of this study, later categorized thoughts as positive (facilitating relaxed and effective performance), negative (hindering relaxed and effective performance), or neutral. Interrater agreement for a sample of 17 subjects was 86% for positive thoughts and 95% for negative thoughts ($kappas = .79$ and $.93$, respectively).

Simulation ratings

After completing the thought listing forms, subjects were asked to describe their maximal anxiety and the quality of their performance during the simulation on single-item 0 to 100 scales (higher ratings indicating higher anxiety or better performance). Six undergraduate research assistants not directly associated with the study viewed the videotapes of the simulations and completed the same two ratings for each subject. Raters were instructed to use their own criteria and evaluate each subject as if he or she were someone they were

seeing in a naturally occurring situation. They were further instructed not to discuss the ratings among themselves. Although the raters were aware that the subjects were awaiting treatment for social phobia, they were blind to the specific hypotheses of this study and to subjects' scores on all other measures. Each videotape was viewed by all six raters (as recommended by Farrell and colleagues [1979]), but this measure could be completed on only 15 public-speaking phobics and 25 generalized social phobics while these raters were available.

The intraclass correlation coefficient (Winer, 1982) was calculated as a measure of interrater agreement for the six raters. Despite the absence of formal training, interrater consensus was quite high ($r = .89$ for maximal anxiety and $r = .88$ for performance quality). The six raters' scores were averaged for these two variables and mean consensus ratings were used in all statistical analyses.

Results

Demographics

Demographic data for the social phobic subtypes are presented in Table 1. A corrected χ^2 analysis revealed no significant difference in gender ratio between subtypes ($\chi^2[1] < 1$). Gender differences within subtypes were not considered because of sample size considerations. Generalized social phobics were younger ($t[53] = 2.88, p < .006$), less educated ($\chi^2[3] = 8.09, p < .05$) and less likely to be employed ($\chi^2[1] = 4.59, p < .05$) than public-speaking phobics. While generalized social phobics were somewhat more likely to be single, the groups did not differ significantly on marital status ($\chi^2[1] < 1$).

| | Public-Speaking Phobics | Generalized Social Phobics |
|------------------|-------------------------|----------------------------|
| <i>N</i> | 22 | 35 |
| <i>N</i> female | 8 | 16 |
| Age (yrs) | | |
| $\bar{X} \pm SD$ | 33.22 \pm 7.39 | 28.00 \pm 6.01 |
| Range | 21–49 | 19–45 |
| Marital status | | |
| Single | 54.5 | 68.6 |
| Married | 31.8 | 22.9 |
| Divorced | 9.1 | 5.7 |
| Widowed | 4.5 | 0 |
| Education | | |
| Some high school | 0 | 2.9 |
| High school | 9.1 | 11.4 |
| Some college | 18.2 | 48.6 |
| College | 72.7 | 34.3 |
| Employment | | |
| Employed | 95.5 | 65.7 |
| Unemployed | 4.5 | 31.4 |

a. Except for age variable, table entries represent percentages. Percentages not summing to 100 are due to missing data.

Phobic Severity

Clinicians rated generalized social phobics ($\bar{X} = 5.91$) as more severely impaired than public-speaking phobics ($\bar{X} = 5.05$) on the Phobic Severity Rating Scale ($t[55] = 3.23, p < .002$).

Self-Report Questionnaires

As shown in Table 2, generalized social phobics and public-speaking phobics differed significantly on six of eight self-report measures. In each case, greater impairment was reported by generalized social phobics. They reported significantly greater social avoidance and distress and greater fear of negative evaluation by others. They endorsed more negative self-statements and fewer positive self-statements about social interaction. They also reported greater general anxiety and depression than public-speaking phobics. The groups did not differ on the measures of social phobic anxiety (FQ) or anxiety in public-speaking situations (PRCS).

Table 2. Public-Speaking Phobics vs. Generalized Social Phobics: Self-Report Measures^a

| | Public-Speaking Phobics | Generalized Social Phobics | <i>t</i> |
|------------------|-------------------------|----------------------------|----------|
| SADS | 15.00 ± 9.50 | 22.90 ± 4.69 | -3.91** |
| FNE | 22.90 ± 6.61 | 26.06 ± 4.19 | -2.17* |
| FQ-Social Phobia | 18.24 ± 5.80 | 21.64 ± 7.00 | -1.85 |
| PRCS | 25.30 ± 3.06 | 24.21 ± 4.00 | 1.04 |
| SISST-Positive | 40.79 ± 10.48 | 34.06 ± 10.33 | 2.22* |
| SISST-Negative | 39.95 ± 13.64 | 56.23 ± 11.67 | -4.49** |
| STAI-Trait | 49.58 ± 14.12 | 56.79 ± 9.02 | -2.25* |
| BDI | 11.82 ± 8.18 | 17.06 ± 7.69 | -2.42* |

a. *N*-values for public-speaking phobics vary from 19 to 22 due to missing data; *N*-values for generalized social phobics vary from 30 to 33.

* $p < .05$, ** $p < .01$

Behavioral Challenge Measures*Thought listing*

Public-speaking and generalized social phobics did not differ in the total number of thoughts listed in response to the thought listing procedure (respective means = 5.19 and 4.79). However, to control for individual variation in the total number of thoughts recorded, negative and positive thoughts were considered as percentages of total thoughts. Although the two groups did not differ in the percentage of negative thoughts reported, generalized social phobics listed fewer positive thoughts than did public-speaking phobics (see Table 3).

Simulation ratings

As shown in Table 3, the generalized and public-speaking phobics did not differ on their global self-reports of the maximal anxiety experienced during the simulation or on their self-ratings of performance quality. However, the generalized group reported more anxi-

ety than the public speakers immediately after the simulation on the STAI-State. Furthermore, in contrast to subjects' ratings, objective observers rated the generalized group as more anxious and as giving poorer performances than the public-speaking group.

Table 3. Public-Speaking Phobics vs. Generalized Social Phobics: Behavioral Challenge Measures^a

| | Public-Speaking Phobics | Generalized Social Phobics | <i>t</i> |
|---|----------------------------|-------------------------------|----------|
| STAI-State | 46.24 ± 8.60 | 54.19 ± 12.19 | -2.59* |
| % positive thoughts | 21.24 ± 30.88 | 6.57 ± 10.89 | 2.54* |
| % negative thoughts | 61.72 ± 30.71 | 69.58 ± 28.74 | -96 |
| Maximal anxiety during the simulation | | | |
| Subject rating | 62.41 ± 23.79 | 63.71 ± 18.60 | -23 |
| Consensus rating | 53.67 ± 18.36 | 68.60 ± 15.59 | -2.74** |
| Performance quality during the simulation | | | |
| Subject rating | 42.50 ± 21.70 | 36.80 ± 24.07 | .90 |
| Consensus rating | 65.89 ± 18.36 | 43.93 ± 20.92 | 3.36** |

a. With the exception of the consensus ratings in which $N = 15$, N -values for public-speaking phobics vary from 21 to 22 due to missing data. With the exception of the consensus ratings in which $N = 25$, N -values for generalized social phobics vary from 32 to 35 due to missing data.

* $p < .05$, ** $p < .01$

SUDS reports

An analysis of variance with Minute as a repeated factor was conducted on SUDS reports given during the anticipatory and performance phases of the behavioral challenge. Public-speaking phobics ($\bar{X} = 42.03$) tended to report greater anxiety than generalized social phobics ($\bar{X} = 32.67$) during the anticipatory phase ($F[1, 54] = 3.12, p < .10$), but the groups did not differ in anxiety during the performance phase ($F[1, 51] = 1.32, NS$). There was a significant main effect for Minute during both phases (anticipatory phase, $F[2, 108] = 33.36, p < .0001$; performance phase, $F[4, 204] = 6.43, p < .0001$). Duncan's multiple range tests were conducted on the means collapsed across subtype. SUDS ratings increased between the first ($\bar{X} = 29.95$) and second minutes ($\bar{X} = 38.59$) of the anticipatory phase but the second and third ($\bar{X} = 40.50$) minutes did not differ from each other. During the performance phase, SUDS initially increased between the first ($\bar{X} = 42.66$) and second ($\bar{X} = 52.39$) ratings, leveled off at the third rating ($\bar{X} = 52.22$), and then began to decrease (fourth rating $\bar{X} = 49.91$; fifth rating $\bar{X} = 47.16$). The Minute \times Subtype interaction was not significant for either phase (anticipatory $F[2, 108] = 1.79, NS$; performance $F[4, 204] = 2.02, NS$).

Heart rate reactivity

An analysis of variance with a repeated factor for Minute was conducted on heart rate reactivity during the behavioral challenge. Both main effects and the interaction were significant (Subtype, $F[1, 45] = 13.58, p < .001$; Minute, $F[4, 180] = 11.23, p < .0001$; Minute \times Subtype, $F[4, 180] = 7.36, p < .001$). Duncan's tests conducted on the means for the interaction effect revealed that public-speaking phobics experienced more heart rate arousal than generalized social phobics at each assessment point. Furthermore, the pattern of arousal

differed for the two groups. For the generalized group, there was a significant decrease between the first and second samples but the subsequent samples did not differ from one another. Heart rate acceleration was modest and relatively consistent. In contrast, public-speaking phobics experienced a substantial spike in heart rate arousal during the first two samples, which then decreased significantly in the remaining samples (see Figure 1).

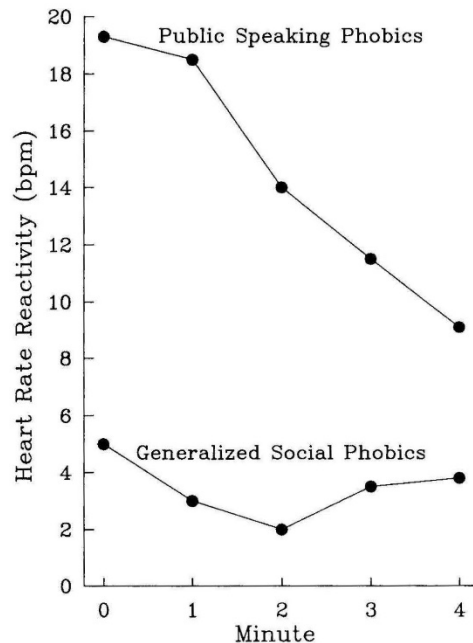


Figure 1. Heart rate reactivity of generalized social phobics and public-speaking phobics in response to the behavioral challenge.

Controlling for Phobic Severity

As noted above, generalized social phobics were rated by clinicians as significantly more impaired than public-speaking phobics. This finding poses a potential competing hypothesis for other group differences reported above, that is that they are simply a function of the degree of impairment of the two groups but do not represent otherwise meaningful differences. To evaluate this hypothesis, all analyses were repeated as analyses of covariance controlling for subjects' scores on the Phobic Severity Rating Scale. In effect, these analyses compared generalized and public-speaking groups of equated severity.

Controlling for phobic severity had relatively little effect on the pattern of findings. No measures derived from the behavioral challenge were affected. Analyses of the STAI-State, observers' ratings of anxiety and performance, and heart rate measures continued to reveal significant differences between generalized social phobics and public-speaking phobics. Among the self-report measures, analyses of the SADS and negative self-statement subscale of the SISST continued to reflect significant group differences. However, generalized social phobics' and public-speaking phobics' scores on the FNE, positive self-statement subscale of the SISST, STAI-Trait, and BDI were no longer significantly different.

Discussion

This study sought to examine the similarities and differences between social phobic patients who fear most or all social situations and social phobic patients whose fears are restricted to a more specific type of social event (public speaking). This comparison became important with the specification of DSM-III-R of social phobia, generalized type. It is also important because questions have been raised about the appropriateness of classifying public-speaking phobics and other social phobics in the same diagnostic category (McNeil and Lewin, 1986; Spitzer and Williams, 1985). Our data may shed some light on these questions.

Let us first examine the similarities between generalized social phobics and public-speaking phobics. These patients did not differ in their self-report of severity of social phobic anxiety or anxiety in public-speaking situations. Neither did they differ in self-rated anxiety or performance during the behavioral challenge, suggesting that they may experience similar degrees of anxiety when exposed to individually relevant situations. Additionally, while the scores of generalized social phobics exceeded those of public-speaking phobics on most measures, the groups may still be more similar than different on some dimensions. For instance, there was a significant difference between groups on the FNE with generalized social phobics achieving a mean score approximately 3 points higher. However, both groups scored more than 10 points higher than the published mean for this measure (Heimberg, 1988; Watson and Friend, 1969) and higher than reported for several anxiety disordered groups (Turner et al., 1987). Thus, although differing in degree, generalized social phobics and public-speaking phobics appear similar on the key dimension, fear of evaluation and scrutiny by others.

In contrast, generalized social phobics and public-speaking phobics differed on a variety of measures. Generalized social phobics were younger, less educated, and more likely to be unemployed when they presented for treatment. They were also more generally anxious and depressed, and their phobias were judged more severe by clinical interviewers. Despite the similarities noted above, generalized social phobics appeared to have suffered more anxiety and disruption of functioning and to have done so at an earlier point in their lives. This may be the result of the greater frequency with which they must confront (or avoid) anxiety-provoking social situations.

When phobic severity was statistically controlled, differences in depression, general anxiety, and on some measures of social phobic anxiety (FNE, SISST-Positive self-statements) vanished. However, a number of qualitative differences remained between generalized social phobics and public-speaking phobics. On questionnaire measures, generalized social phobics reported more avoidance and distress and more negative self-statements during social interactions. During the behavioral challenge they reported fewer positive self-statements, and they were judged by observers to be more anxious and less skillful. On the other hand, public-speaking phobics appeared to experience more difficulty in the realm of cardiovascular arousal during the behavioral challenge. While generalized social phobics showed a small, consistent level of reactivity (3–6 beats/minute) over the course of the test, public-speaking phobics showed a rather drastic and immediate surge of heart rate (20 beats/minute) that subsided only gradually. While generalized social phobics might have

reacted similarly if exposed to a public-speaking situation (as suggested by their high scores on the PRCS), these situations may not be relevant to their presenting concerns.

Before discussing these findings further, it is important to acknowledge an important limitation in the design of the behavioral tests, that is, that generalized social phobics and public-speaking phobics responded to different stimulus situations. Based on a previous study conducted in our laboratory, which showed greater arousal and behavioral disruption in response to personalized, rather than standardized, stimulus scenarios (Chiauzzi et al., 1985), it was decided that individualized, personally relevant scenarios should be used in our behavioral simulations. Simulations were selected on the basis of a preliminary interview from among these events that evoked a SUDS rating greater than or equal to 75. Thus, all subjects simulated important, anxiety-evoking events. These were social interactions for the generalized phobics and presentations for the public-speaking phobics, the anxiety-evoking events for which each sought treatment. Although the impact of this difference cannot be assessed, the data suggest that the simulations evoked similar levels of subjective anxiety for both groups. At no point during the behavioral challenge did public-speaking and generalized social phobics differ significantly on their SUDS ratings, nor did their ratings of maximal anxiety differ. Thus, it appears that these challenges evoked equivalent levels of subjective anxiety for generalized and public-speaking phobics but maintained a greater relevance for each patient than would be possible with standardized stimuli.

With this in mind, what may we say about the differences between the social phobic subtypes? It appears that generalized social phobics show symptoms in the cognitive/subjective and behavioral categories. They report more subjective anxiety (SADS) and expect more negative outcomes in social interactions (SISST, thought listing). Interestingly, whereas these negative projections may be self-fulfilling, they are not necessarily distorted; observers did detect more anxiety and less competent performances on the part of generalized social phobics, and observers' ratings and patients' self-ratings were in general agreement. Thus, generalized social phobics appear to expect the worst and seem resigned to their fate. One might speculate that they feel more hopeless about future social interactions and that this is the mechanism behind their greater depression.

Public-speaking phobics, in contrast, appear to be most impaired in the cognitive and physiological symptom categories. Their extreme spike of cardiovascular arousal clearly distinguishes them from generalized social phobics. It is also of interest that they rated their anxiety high and their performance low during the behavioral test. Unlike the generalized social phobics, however, public-speaking phobics appear to have underestimated the quality of their performance and overestimated the visibility of their anxiety symptoms (compared with observer ratings). Thus, one might speculate that their anxiety is related to the interaction of these factors—an intense surge of physiological arousal followed by an inaccurate assessment of how it will affect their performance or others' evaluation of their anxiety. Recent research on socially anxious persons suggests that they are, in fact, overly preoccupied with whether their anxiety will be visible to others (McEwan and Devins, 1983).

What do these data in their totality have to say about the validity of DSM-III-R's generalized subtype and about questions about the classification of public-speaking phobics

raised by Spitzer and Williams (1985) and McNeil and Lewin (1986)? They appear to provide substantial support for the existence of a generalized subtype of social phobia and suggest that DSM-III-R is on solid ground with this notion. Furthermore, they demonstrate that generalized and public-speaking phobics differ not only in degree of impairment but also in the pattern of their response to phobic stimuli. However, both groups seem to be predominantly concerned with the scrutiny and evaluation of others. If this is the case, then public-speaking phobia fits nicely into the broader classification of social phobia. In the current system, it is the locus of fear and the amount of impairment that makes the diagnosis, not the patient's specific response pattern in the phobic situation. Nevertheless, these findings may have significant implications for treatment that justify further examination of subtyping within the category of social phobia. Although both types of phobics have responded well to the package of simulated exposures, cognitive restructuring, and homework assignments that has been tested in our laboratory (Heimberg et al., 1985b, 1987b), public-speaking phobics have shown a somewhat better response (Heimberg, 1986). A number of hypotheses might be raised about psychosocial and pharmacological treatment strategies: (a) In light of the heart rate findings in this study, would public-speaking phobics respond more positively than generalized phobics to psychosocial treatments including relaxation training or other arousal control skills? (b) Might they also respond more positively to beta-blockers that would moderate their extreme cardiac acceleration? The literature on the use of these medications for performance anxiety among normal subjects suggests that this might be the case (Leibowitz et al., 1985b). (c) Would generalized social phobics be more likely to benefit if exposed to a social skills training package inasmuch as observers agreed with their poor evaluation of their performance? (d) Should the focus of cognitive restructuring activities be different for generalized and public-speaking phobics? For public-speaking phobics, the focus might be on how much others can perceive their anxiety and on accurate self-evaluation during performances; for generalized phobics, it might revolve around tendencies toward negative monologues and poor self-definition. These questions await future investigation.

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