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Validity of the Distinction between Generalized Social Phobia and Avoidant Personality Disorder

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Abstract

Disorders of pervasive social anxiety and inhibition are divided into 2 categories, generalized social phobia (GSP) and avoidant personality disorder (APD). We explored the discriminative validity of this categorization by examining the comorbidity of GSP and APD and by comparing these groups on anxiety level, social skills, dysfunctional cognitions, impairment in functioning, and presence of concurrent disorders. Results from 23 subjects showed high comorbidity of the 2 diagnoses: All subjects who met criteria for APD also met criteria for GSP. APD was associated with greater social anxiety, impairment in functioning, and comorbidity with other psychopathology, but no differences in social skills or performance on an impromptu speech. GSP and APD seem to represent quantitatively different variants of the same spectrum of psychopathology rather than qualitatively distinct disorders. We also investigated a proposed social phobia subtyping scheme.

Although difficulties with excessive social anxiety and avoidance have been recognized since antiquity, Marks (1970) was the first to discuss social phobia (SP) as a clinical syndrome distinct from other anxiety disorders. SP was not officially recognized as a diagnostic entity until publication in 1980 of the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-III*; American Psychiatric Association, 1980), and only recently have disorders of social anxiety attracted the attention of experimental clinical investigators (Liebowitz, Gorman, Fyer, & Klein, 1985). The *DSM-III* defined SP as a "persistent,

irrational fear of, and compelling desire to avoid, a situation in which the individual is exposed to possible scrutiny by others and fears that he or she may act in a way that will be humiliating or embarrassing" (American Psychiatric Association, 1980, p. 228). Since the publication of the *DSM-III* several studies have distinguished SP from other anxiety disorders. Measures of demographic characteristics, onset of symptoms, and symptom patterns as well as biological challenge studies have supported the validity of the diagnosis (Amies, Gelder, & Shaw, 1983; Heimberg et al., 1989; Liebowitz, Fyer, & Gorman, 1985; Rapee, Mattick, & Murrell, 1986; Reich, Noyes, & Yates, 1988).

SP was conceptualized in the *DSM-III* as a disorder characterized by fear and avoidance of rather discrete social situations, such as speaking in public or using public lavatories. The condition was thought to be rarely incapacitating, and the diagnosis of SP was ruled out if a person met the criteria for the more pervasive condition of avoidant personality disorder (APD). After the publication of the *DSM-III* several investigators challenged the notion that SP is usually limited to discrete situations. Liebowitz, Gorman et al. (1985) and Turner, Beidel, Dancu, and Keys (1986) found that most social phobics suffer significant distress and associated impairment in a wide range of situations. These observations led to a modification of the criteria for SP in the revised *DSM-III (DSM-III-R;* American Psychiatric Association, 1987). Although fear of scrutiny and humiliation by others was retained as the sine qua non of the disorder, the pervasiveness of impairment across situations was explicitly recognized by the creation of a generalized subtype of SP (GSP) in which distress is found in all or most social situations. Furthermore, the diagnosis of SP was no longer ruled out if the person also met criteria for APD.

Although the revised criteria in the *DSM-III-R* attempted to address the finding of a high degree of pervasive anxiety, avoidance, and isolation among social phobics, no guidelines were provided for differentiating GSP from APD. A careful analysis of the *DSM-III-R* criteria for the two conditions reveals a high degree of similarity and overlap, despite differences in terminology. This raises the question of whether GSP and APD represent qualitatively distinct nosological entities or whether they reflect quantitative variants of essentially the same spectrum of psychopathology (Brooks, Baltazar, & Munjack, 1989).

Only three studies to date have compared persons with SP and APD. Turner et al. (1986) found that persons diagnosed with APD reported more severe anxiety and depression and were rated as less socially skilled in a role-play test than were persons with SP. These results appear to confirm the widespread belief that the two disorders can be distinguished by APD's association with deficits in social skills (Greenberg & Stravynski, 1983; Marks, 1985; Turner & Beidel, 1989) The distinction between SP and APD in that study, however, was made on the basis of now defunct *DSM-III* criteria, which precluded a diagnosis of SP if the criteria for APD were met. Most persons who may now be considered generalized social phobics according to *DSM-III-R* criteria had not been included in Turner et al.'s SP sample. Schneier, Spitzer, Gibbon, Fyer, and Liebowitz (1991) conducted a diagnostic screening of 50 patients who were seeking admission to a treatment study for social anxiety. Schneieret al. used a checklist of the *DSM-III-R* criteria for SP and the APD section of the Structured Clinical Interview for *DSM-III-R* for Axis II (SCID-R-11; Spitzer, Williams, Gibbon, & First, 1990). Of 36 subjects who met criteria for GSP, 32 (89%) also met criteria for APD. Holt, Heimberg, and Hope (1992) used the Anxiety Disorders Interview Schedule-

Revised (ADIS-R; DiNardo & Barlow, 1988) and the Personality Disorder Examination (Loranger, 1988) to categorize a sample of 33 social phobics as to subtype of social phobia and presence of APD. Among the 20 subjects diagnosed with GSP, 10 had concurrent diagnoses of APD; only 3 subjects had a diagnosis of APD without GSP. Subjects with both GSP and APD reported higher levels of social anxiety and had a higher rate of comorbid depressive diagnoses than subjects with only GSP. The two groups did not differ, however, on demographic characteristics or in self-reported depression.

The apparently high overlap and conceptual similarity of GSP and APD raise the possibility that other taxonomic schemes might better distinguish categories of severe social anxiety and avoidance. One promising alternative was proposed by Heimberg and Holt (1989). The current discrete form of social phobia, in which distress is limited to one specific situation (e.g., public speaking), is retained. More pervasively impaired persons are divided into two quantitatively defined subtypes: nongeneralized social phobia, in which anxiety and avoidance extend to many different social contexts, although functioning remains adequate in some spheres, and GSP, in which anxiety and avoidance extend to most or all social contexts.¹ Despite its conceptual clarity, it is not clear if the proposed subtyping scheme divides social phobics into groups that differ on clinically meaningful measures nor how the nongeneralized-generalized distinction overlaps with the extant GSP-APD distinction.

In summary, although the available data suggest substantial comorbidity of GSP and APD, the two studies conducted to date that have used *DSM-III-R* criteria found widely differing rates of overlap between the two disorders. This difference could be due to a host of methodological differences, including sampling variance. A likely explanation rests in the differing diagnostic instruments used by the two teams of investigators. Our study attempts to shed light on the degree of comorbidity of GSP and APD by examining a sample of severely socially anxious persons by means of a thorough and valid structured diagnostic interview. Unlike prior research in this area, the full range of Axis I and Axis II psychopathology was assessed, which permitted us to examine the comorbidity not only of GSP and APD but also of each condition with other disorders.

In order to establish the validity of GSP and APD as distinct diagnostic syndromes, qualitative differences were expected on at least some relevant clinical variables, given that a finding of strictly quantitative differences would suggest a single disorder with different levels of severity. The most widely hypothesized distinguishing factor between GSP and APD is the latter's relatively greater impairments in social skills (Greenberg & Stravynski, 1983; Marks, 1985; Turner & Beidel, 1989; Turner et al., 1986). We used a role-play test and a quasi-naturalistic behavior sample (an impromptu speech) to examine the social competence of the two groups. In addition, the subjects with GSP and APD were also compared on measures of anxiety, dysfunctional cognitions, impairment in functioning, and concurrent psychopathology. Finally, in exploratory analyses we examined the recently proposed quantitative subtyping scheme for SP with respect to its relation to the current *DSM-III-R* system as well as to the other measures we mention.

Method

Subjects

The subjects were solicited through community media announcements that offered a free nonmedication treatment program for extreme shyness and social anxiety in exchange for participation in an assessment study. The first 90 persons who inquired about the study underwent a brief telephone screening to ascertain if they appeared likely to meet the subject selection criteria. The 49 persons who passed this initial screening were then administered both Parts I and 2 of the SCID-R (Spitzer et al., 1990) and the Social Phobia subsection of the ADIS-R (DiNardo & Barlow, 1988) to determine their diagnosis according to the DSM-III-R. These instruments were also used to determine SP subtype according to DSM-III-R criteria, and subjects with only discrete SP were eliminated from the sample. The interviews were conducted by authors James D. Herbert and Debra A. Hope, both of whom had undergone extensive training in the administration of the SCID-R. All subjects who met DSM-III-R criteria for GSP were also subsequently classified as to subtype of SP according to criteria recently proposed by Heimberg and Holt (1989). These latter distinctions were based on the range of situations in which subjects experienced anxiety and avoidance, as determined from the interview data. All diagnostic interviews were audiotaped, and interrater reliability was determined for 50% of the sample. Agreement was 100% for APD and 92% for subtype of SP. Of the 49 persons who underwent the structured interview, 28 met the subject selection criteria and 23 actually completed the study. The inclusion criteria were (a) a DSM-III-R diagnosis of GSP, APD, or both and (b) age between 18 and 55 years. The exclusion criteria were: (a) a history of schizophrenia, bipolar disorder, organic brain syndrome, mental retardation, or substance dependence (other Axis I or II disorders were allowed when the principal diagnosis of GSP or APD was judged to be primary to and of greater severity than the secondary diagnosis); (b) a severe medical condition that might confuse the diagnosis of an anxiety disorder (e.g., Raynaud's disease or cardiac disease); and (c) current use of psychotropic medications.

The mean age of the sample was 36 years, and the mean interviewer rating on the Global Assessment of Functioning Scale, part of the SCID-R, was 53.75. Forty-six percent of the subjects were male, and 53% were female. Thirteen subjects had never been married, 7 were currently married, and 3 were divorced. One subject had not completed high school, 3 were high school graduates only, 8 had some college work but no degrees, 6 held bacca-laureate degrees, and 5 held graduate degrees. One subject was Black, and the remainder were White. Overall, the sample was a rather young, well-educated group who reported a chronic course of extreme social anxiety and avoidance that interfered significantly with their social and occupational functioning.

Measures

After the diagnostic interview, the subjects were given a battery of self-report questionnaires to complete, and social skills were assessed with a role-play test approximately 1 week later.

Questionnaire measures

The subjects completed a battery of widely used self-report measures that assess anxiety, concern over negative evaluation by others, and other measures of psychopathology. The anxiety measures included the Social Phobia Anxiety Inventory (Turner, Beidel, Dancu, & Stanley, 1989), the Social Avoidance and Distress Scale (Watson & Friend, 1969), and the State-Trait Anxiety Inventory-Trait Form (Spielberger, 1983). The psychopathology measures included the Symptom Check List-90-Revised (Derogatis, 1977) and the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Finally, the measure of concern over social evaluation was the Fear of Negative Evaluation Scale (Watson & Friend, 1969).

Assessment of social skill

Social skills were assessed with a role-play test and an impromptu speech. There is an extensive literature that documents the validity of role-play tests as general indicators of behavioral skill (Bellack, Morrison, Mueser, Wade, & Sayers, 1990; Conger & Conger, 1986; Merluzzi & Biever, 1987; Mueser, Bellack, Morrison, & Wade, 1990). The role-play test that we used consisted of two interpersonal scenarios that involve initiating and maintaining a conversation with strangers. The scenarios were selected from among a larger group previously used by Bellack et al. (1990), then modified slightly to increase their relevance for this population. The first scene consisted of initiating a conversation with a stranger who just moved into the subject's apartment building. The second scene consisted of holding a conversation with two co-workers whom the subject has just met at a new job.

The subjects were given an overview of the role-play rationale and procedures by an experimenter and were taught to quantify their level of subjective anxiety with the Subjective Units of Discomfort Scale (SUDS; Wolpe & Lazarus, 1966). The first scenario was then described, and a pretest SUDS rating was obtained. A confederate then entered the room, and the description of the scenario was repeated by the experimenter. Immediately after this second description, the subjects and the confederate enacted the role play for 3 min. On completion of the first role play, the confederate exited the studio, and the subjects provided a SUDS rating of their anxiety at that moment (immediate posttest SUDS) and another rating of the highest level their anxiety reached during the role play. Subjects then completed a thought-listing procedure, in which they were instructed to write down any thoughts they recalled having during the role play (Cacioppo & Petty, 1981). The second role-play scenario was then administered in the same manner. The confederates were trained to respond in a friendly but reserved manner with neutral affective tone, which thereby placed the primary burden of maintaining the conversation on the subject. The confederates underwent extensive training and practice prior to actual data collection, and their performance was monitored by James D. Herbert throughout the project to ensure consistency across subjects and time.

After the role-play test, the subjects presented a 3-min impromptu speech to a small audience of the experimenter and three confederates. Subjects chose one of four topics presented by the experimenter (e.g., things to do and see in Philadelphia) and were given 1 min to prepare before beginning the speech. The role play interactions and the impromptu speech were videotaped for subsequent rating on overall social skills, adequacy of speech

content, adequacy of nonverbal behavior, and adequacy of paralinguistic behavior. Overall social skills were rated independently of the other categories. All ratings were made on 5-point Likert scales by research assistants who were unaware of the diagnostic status of subjects. Raters were trained with a library of videotapes from pilot work. Interrater reliabilities, calculated on 43% of the ratings, were determined by means of intraclass correlation coefficients (ICCs), computed according to the Case 2 formula derived by Shrout and Fleiss (1979). The reliabilities were moderately strong for overall social skills (ICC= .58) and for paralinguistic behavior (ICC= .75). The reliabilities for speech content and nonverbal behavior were weaker (ICCs = .42 and .47, respectively), and these ratings must therefore be interpreted with caution. The thoughts from the thought-listing procedure were also rated by judges, unaware of the subjects' diagnostic status, as positive, negative, or neutral or unclassifiable. Interrater reliability was obtained on the ratings of 52% of the subjects and yielded kappa coefficients of .64 and .87 for positive and negative thoughts, respectively.

Results

Social Phobia versus Avoidant Personality Disorder

All of the subjects met *DSM-III-R* criteria for GSP. Fourteen of the 23 subjects (61%) also met criteria for APD. Because no subject met the criteria for APD without also meeting the criteria for GSP, we examined the differences between subjects diagnosed with only GSP in relation to those with both GSP and APD.

Demographic and diagnostic differences

Descriptive statistics for the demographic and diagnostic data are presented in Tables 1 and 2. A chi-square test revealed no significant differences in gender and a *t* test revealed no significant differences in age between the GSP alone and the GSP with APD groups. Only one subject diagnosed as GSP without APD had an additional Axis I or Axis II disorder, whereas 10 of the 14 subjects (71%) who met criteria for both GSP and APD also met criteria for at least one other diagnosis, $\chi^2(1, N = 23) = 10.97$, *p* < .001. Subjects with GSP only obtained higher scores on the interviewer-rated Global Assessment of Functioning Scale, *t*(22) = 2.94, *p* < .008, which suggests greater overall impairment among subjects diagnosed with both GSP and APD in relation to those with GSP alone.

Table 1. Demographic Data				
Measure	APD with SP	SP only	Test	р
Age			t(22) = 0.81	.43
М	34.5	37.4		
SD	9.0	8.1		
Global Assessment of Functioning Scale			t(22) = 2.94	.008
М	49.6	59.5		
SD	8.8	6.9		
Sex(% men)	57	30	$x^2(1, N = 24) = 0.81$.37

Note: APD = avoidant personality disorder; SP = social phobia

Table 2. Frequency of Comorbid Diagnoses							
Diagnosis	APD with SP	SP only					
Polysubstance abuse (in remission)	0	1					
Alcohol abuse (in remission)	2	0					
Dysthymia	3	0					
Simple phobia	1	0					
Generalized anxiety disorder	1	0					
Somatoform disorder	1	0					
Passive-aggressive personality disorder	1	0					
Paranoid personality disorder	1	0					
Schizoid personality disorder	1	0					
Schizotypal personality disorder	1	0					

Note: APD = avoidant personality disorder, SP = social phobia

Self-report measures

As illustrated in Table 3, subjects diagnosed with GSP and APD obtained more extreme scores on each of the questionnaires than those diagnosed with GSP only. In order to protect the overall alpha level of the tests, we used a test described by Fisher (1954) in which the overall probability of obtaining the observed significance values from a given number of independent tests is assessed. This test confirmed that the observed pattern of results was extremely unlikely to have occurred by chance, $\chi^2(12, N = 23) = 42.91$, p < .001.

Table 3. Means and Standard Deviations for Questionnaire Scores										
	APD with SP		SP only		_					
Measure	М	SD	М	SD	t(21)	р				
Social Phobia and Anxiety Inventory (Social Phobia subscale)	146.3	26.7	118.4	35.7	2.10	.04				
Fear of Negative Evaluation Scale	26.1	5.5	20.2	8.9	1.95	.06				
Social Avoidance and Distress Scale	24.7	3.1	19.0	10.0	2.02	.05				
State-Trait Anxiety Inventory-Trait	54.1	11.2	40.7	11.1	2.77	.01				
Beck Depression Inventory	11.6	7.8	5.1	4.2	2.39	.02				
SCL-90-R Global Symptom Index	.95	.61	.44	.26	2.43	.02				

Note: APD = avoidant personality disorder, SP= social phobia, SCL-90-R = Symptom Check List-90-Revised

Social skills, subjective distress, and dysfunctional cognitions

Because of the marginal interrater reliability for two of the three component behavior ratings from the role-play test and the moderate degree of intercorrelation of the component scores (mean r = .40), a composite measure of these ratings was created in order to provide the most reliable overall index of the component ratings of social skill. Although combining component ratings that are themselves of somewhat questionable reliability may result in a more reliable composite score, enhanced reliability of the resulting composite cannot be guaranteed. The results of the composite score must therefore be interpreted with appropriate caution. The composite scores were generated as follows: Each rating was summed across the two role-play scenarios, which yielded a single value on each domain of social skill (i.e., overall social skills, speech content, nonverbal behavior, and paralinguistic behavior) for the role-play test as a whole. The three component scores were then transformed to normalized *z* scores and summed to yield a single composite score for the role-play test component ratings. Similarly, a single composite score was created from the speech component behavior ratings by summing the three *z*-transformed component ratings. The composite score and the overall social skills rating for the role-play test were then subjected to a multivariate analysis of variance (MANOVA) with diagnostic group as the independent variable. The MANOVA failed to reach significance, *F*(2, 20) < 1. The composite rating and the overall social skills rating for the impromptu speech were similarly examined with a separate MANOVA, which also failed to reach significance, *F*(2, 20) < 1. The mean role-play test ratings for the APD with GSP group were 5.07 for overall social skills and –.43 for the composite measure, and for the GSP only group, 5.89 and .67, respectively. For the impromptu speech the mean ratings were 2.64 for overall social skills and –.26 for the composite for the GSP with APD subjects, and 2.78 and .41, respectively, for the GSP only subjects.

In order to examine potential differences between the groups in the patterns of subjective anxiety experienced during the role-play test and the impromptu speech, analyses were conducted on the subjects' SUDS ratings. Three ratings were made by each subject for each role-play interaction and for the impromptu speech: one just before the scenario or speech, one immediately afterward, and one that reflected the highest level of anxiety reached during the performance. The corresponding SUDS ratings for the two role-play test scenarios were highly correlated (mean r = .80). These ratings were therefore summed across the two scenarios to yield three ratings (pretest, highest, and posttest) for the roleplay test as a whole. The SUDS ratings for the role-play test and the speech were subjected to a 2 (diagnostic groups) × 6 (pretest-highest-posttest ratings for the role-play test and speech) mixed factorial analysis of variance, with repeated measures on the last variable. Significant main effects for diagnostic group, F(1, 22) = 4.09, p < .05, and assessment occasion, F(5, 110) = 27.62, p < .0001, were revealed. The Group × Occasion interaction was marginally significant, F(5, 110) = 2.12, p < .07. Subjects diagnosed with both GSP and APD reported greater overall SUDS ratings (M = 63.25, SD = 12.37) than did subjects diagnosed with GSP alone (M = 47.68, SD = 17.39). Tukey post hoc tests revealed that overall the speech was more distressing than the role-play test for both groups of subjects. Moreover, whereas subjects with both GSP and APD reported greater anxiety than did subjects with GSP alone at all assessment points during the role-play test, the two groups differed only at the pretest assessment for the speech. That is, the two diagnostic groups did not differ in their level of subjective anxiety during or immediately after the speech.

The thought-listing data were examined in order to assess potential differences between groups in the patterns of dysfunctional thoughts elicited by the role-play test and the impromptu speech. The thought-listing data were summarized as the ratio of positive thoughts to positive plus negative thoughts, according to the states-of-mind model (Schwartz & Garamoni, 1989). According to the recommendations of Amsel and Fichten (1990), neutral or unclassifiable thoughts were excluded, and a correction factor of 1.0 was substituted for zero when a subject reported either no positive or no negative thoughts. This ratio yielded a single score that reflected the balance of positively valenced to negatively valenced

thoughts generated by each subject in each of the role-play scenarios. The scores for the two role-play test scenarios were averaged to yield a single score. A *t* test revealed no significant differences in this ratio across the two diagnostic groups, $t(1 \ 8) = 1.09$, *ns*. A second *t* test revealed no significant differences between the two groups for the thought-listing ratio from the speech, t(21) < 1.

Nongeneralized versus Generalized Subtypes of Social Phobia

After the comparison of the subjects with and without APD, we conducted exploratory analyses to examine the data according to the subtyping scheme proposed by Heimberg and Holt (1989). The degree of overlap between the GSP-alone and the GSP-with-APD groups, diagnosed on the basis of *DSM-III-R* criteria and the proposed nongeneralized-generalized SP distinction, was examined in a 2 × 2 matrix in which subjects were grouped according to their classification under both systems. Among subjects diagnosed with GSP only according to *DSM-III-R* criteria, 5 were classified as nongeneralized and 4 as generalized. Among subjects with both GSP and APD, 4 were nongeneralized and 10 were generalized. A chi-square test revealed that the two diagnostic schemes were independent of one another, $\chi^2(1, N = 23) = 0.73$, *ns*.

Demographic and diagnostic differences

Nongeneralized and generalized social phobics did not differ in age, t(21) < 1, although a chi-square test revealed that more of the generalized subjects were male (7.1%), whereas more of the nongeneralized subjects were female (89%), $\chi^2(1, N = 23) = 5.75$, p < .02. There was a greater degree of concomitant Axis I and Axis II disorders among the subjects classified as generalized than among those classified as nongeneralized. Specifically, 9 of the 14 generalized subjects (64%) had comorbid Axis I or II disorders, compared with only 2 of the 9 nongeneralized subjects (22%). Similarly, the generalized subjects were rated as more impaired on the Global Assessment of Functioning Scale (M = 50.29) than were the nongeneralized subjects (M = 57.89), t(21) = 2.06, p < .05.

Self-report measures

In a series of *t* tests, we compared the two groups on the various questionnaire measures. None of these tests reached significance.

Social skills, subjective distress, and dysfunctional cognitions

A MANOVA with SP subtype as the independent variable was conducted on the overall social skills rating and the composite score of the component behavior ratings for the roleplay test. This MANOVA reached significance, F(2, 20) = 3.93, p < .036. Univariate F tests on the overall social skills rating, F(1, 21) = 5.07, p < .035, and the composite of the component behavior ratings, F(1, 21) = 7.98, p < .01, were both significant. For both measures, subjects classified as generalized social phobics displayed poorer social skills than did those classified as nongeneralized. The mean ratings for the generalized group were 4.79 for overall social skills and –.98 for the composite measure, and for the nongeneralized group, 6.33 and 1.53, respectively. A separate MANOVA to examine the overall social skills and composite ratings for the impromptu speech was not significant, F(2, 20) = 1.18, *ns*. The mean ratings were 2.50 for overall social skills and –.54 for the composite measure for the generalized subjects, and 3.00 and .84, respectively, for nongeneralized subjects.

The SUDS ratings for the role-play test and the impromptu speech were subjected to a 2 (nongeneralized vs. generalized) × 6 (pretest, highest, and posttest ratings) mixed factorial ANOVA, with repeated measures on the last factor. The group main effect reached significance, F(l, 21) = 8.70, p < .008, and reflected the fact that subjects diagnosed with GSP reported greater overall SUDS ratings (M = 65.38, SD = 12.55) than did those with the nongeneralized subtype (M = 44.37, SD = 12.61). The assessment occasion main effects also reached significance, F(5, 105) = 23.64, p < .0001. Tukey post hoc test revealed that the speech was more distressing than the role-play test overall. The highest SUDS rating during the role-play test was greater than the pretest or posttest SUDS, which did not differ from one another; this same pattern was also found for the speech. Consistent with the analyses of the thought-listing data, *t* tests revealed no differences between nongeneralized and generalized social phobics in the summary ratio of positive and negative thoughts for the role-play test or for the speech.

Discussion

The extant psychiatric nosology divides disorders of extreme, pervasive social anxiety and inhibition into two different diagnostic entities, SP (particularly the *DSM-III-R* generalized subtype) and APD. Although these diagnoses are the products of different historical traditions, the criteria that define them are strikingly similar. Such similarity raises the question of whether they may have now evolved to the point that they are largely redundant.

Our results revealed substantial overlap between GSP and APD. In fact, every subject who met the criteria for APD also met the criteria for GSP, although the reverse was not always true. Such a high degree of overlap, particularly when one disorder is wholly subsumed within another, raises serious questions about the validity of the two disorders as separate diagnostic entities. Although considerable debate exists about the specific criteria against which taxonomies of psychopathology may be evaluated, there is a general consensus that categorical disorders must be conceptually distinct, discriminable from one another, and as mutually exclusive as possible and that they must demonstrate relations with theoretically meaningful variables apart from those initially used to define them (Cromwell, Blashfield, & Strauss, 1975; Quay, 1986a, 1986b; Spitzer & Endicott, 1978). The distinction between GSP and APD appears to fail on each of these grounds.

Although a high degree of diagnostic overlap between two putatively distinct disorders suggests that they may in fact reflect the same underlying phenomenon, perhaps at different levels of severity, high comorbidity alone does not in and of itself rule out the possibility of two disorders. Depressive and anxiety disorders, for example, typically show high rates of comorbidity (e.g., Kuhs, 1991). Nevertheless, they are conceptually distinct and frequently do occur independently of one another. Moreover, the relation between APD and GSP may not be unique, as APD may also frequently co-occur with panic disorder (Reich, Noyes, & Troughton, 1987). Support for the validity of separate nosological groups hinges in part on whether the two conditions are associated with qualitative differences in

such variables as symptom patterns or theoretically relevant constructs (e.g., social competence in the case of disorders of social anxiety). Differences in etiology and specificity in response to different treatments also weigh in favor of separate diagnostic entities.

In this study, persons diagnosed with both GSP and APD had more extreme scores, in relation to those diagnosed as GSP without APD, on questionnaire measures of anxiety, fear of negative social evaluation, social distress, depression, and global psychopathology. APD was also associated with greater subjective anxiety during a role-play test as well as with a higher rate of comorbidity with other Axis I and Axis II disorders. However, the two groups did not differ in social skills, which is the factor that has been most widely hypothesized to distinguish them. The results are largely consistent with those reported by Holt et al. (1992). They found that, in relation to GSP, APD was associated with more extreme scores on interviewer ratings of phobic severity, the Social Avoidance and Distress Scale, and the anxiety ratings of the Liebowitz Social Phobia Scale, although the groups did not differ on several other measures. Although comorbidity with the full range of Axis I disorders and Axis II disorders other than APD was not examined, Holt et al. found that persons who met the criteria for both GSP and APD were more likely to have a concurrent depressive disorder than those who met criteria for GSP alone.

The high overlap and apparent absence of qualitative differences between GSP and APD raise the possibility that different criteria for GSP and APD, or perhaps even alternative classification schemes, may better describe the population of severely socially anxious and avoidant persons. The criteria for APD in the *DSM-III-R*, for example, are markedly different from the original *DSM-III* criteria for the disorder. The *DSM-III* conceptualization of APD focused more on social withdrawal due to hypersensitivity to rejection and less on symptoms of anxiety. It is possible that greater differentiation of GSP and APD could be achieved if APD were defined closer to the original *DSM-III* criteria. This shift in the definition of APD may explain why Turner et al. (1986), who used the *DSM-III* definition, found differences in social skills between persons diagnosed with SP relative to those with APD, whereas we did not in this study, with *DSM-III-R* criteria.

Heimberg and Holt (1989) proposed a classification system in which the dichotomous subtypes of SP in the DSM-III-R are replaced by three subtypes that vary according to the pervasiveness of anxiety, avoidance, and impairment experienced in social situations. Our results lend some support to the validity of this system. These results reveal that the distinction between nongeneralized and generalized subtypes of SP can be reliably made and is not redundant with the distinction between GSP and APD according to the DSM-III-R. Moreover, although generalized and nongeneralized social phobics did not report different levels of subjective distress on questionnaire measures, the generalized subtype was associated with greater subjective anxiety during the role-play test, with a higher rate of comorbid Axis I and Axis II disorders (other than APD), and with greater overall impairment in functioning. The generalized subtype was also associated with poorer performance on a role-play test in relation to the nongeneralized subtype. Overall, the results suggest that greater impairment in social skills among social phobics is associated with quantitatively more pervasive and severe symptomatology, rather than the presence per se of a comorbid APD diagnosis. Although interesting, these findings are only tentative and must be viewed with caution. Discrete social phobics were not included in our sample,

which limits the ability of the data to speak to the utility of Heimberg and Holt's system. Moreover, evaluation of this system was not the primary purpose of this study, and these results are based on exploratory analyses in a rather small sample.

On a broader level, our results raise questions about the fundamental distinction between Axis I (major psychiatric syndromes) and Axis II (personality disorders) in the *DSM* system. Personality disorders are characterized by a chronic, unremitting course that begins in childhood and results in impairment across multiple domains of functioning. Although APD and GSP appear on separate axes, both fit this description. If qualitative differences are observed between the two disorders, a case can be made that two distinct diagnoses are justified, even if there is no sharp boundary between them. In the absence of qualitative differences, however, two distinct diagnoses that describe the same psychopathology are unwarranted. The issue of whether the spectrum of psychopathology currently classified as APD or GSP is best considered an anxiety disorder or a personality disorder is beyond the scope of this article. It appears, however, that resolution of the issue will require a reexamination of the overall relation between Axes I and II.

In conclusion, the most parsimonious interpretation of our data appears to be that GSP and APD represent different points on a continuum of severity. This view contrasts with the current nosology, which conceptualizes GSP and APD as two distinct (albeit frequently comorbid) disorders. None of the differences that emerged between the two groups point to qualitative dimensions that might distinguish them as separate categories of psychopathology. Nevertheless, further research is needed to assess other potential variables that might distinguish GSP and APD. For example, an investigation of potential differences in treatment response is currently underway in this laboratory. Given the rather small sample sizes and the limited domains of functioning assessed, our study must not be viewed as definitive and needs to replicated and extended. Moreover, although no subjects had APD without also meeting the criteria for GSP, the sample consisted entirely of persons recruited for treatment of social anxiety or avoidance. An epidemiological study would be needed to assess whether persons who clearly meet criteria for APD without a concomitant diagnosis of GSP may be found in a community sample. Despite these limitations and caveats, this study raises serious questions about the validity of the existing categorical distinction between GSP and APD and suggests that consideration must be given to appropriate modification of the psychiatric nosology.

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Note

 A potentially confusing point concerns the different usages of the term *generalized* in the *Diagnos*tic and Statistical Manual of Mental Disorders (rev. 3rd ed.; DSM-III-R; American Psychiatric Association, 1987) and by Heimberg and Holt (1989). The DSM-III-R classifies social phobia as generalized when "the phobic situation includes most situations" (p. 243). Heimberg and Holt based their subtypes on the premise that the dichotomous *DSM-III-R* subtypes do not sufficiently describe the full range of social phobic symptomatology. Specifically, some social phobics report anxiety and avoidance in several areas, although not necessarily in most situations. These persons, who do not fall clearly into either the discrete or generalized subtypes of the *DSM-III-R*, are classified as nongeneralized by Heimberg and Holt. The term *generalized*, as used by Heimberg and Holt, is reserved for cases in which impairment extends to virtually all domains.

References

- Amies, P. L., Gelder, M. G., & Shaw, P. M. (1983). Social phobia: A comparative clinical study. British Journal of Psychiatry, 142, 174–179.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (Rev. 3rd ed.). Washington, DC: Author.
- Amsel, R., & Fichten, C. S. (1990). Ratio versus frequency scores: Focus of attention and the balance between positive and negative thoughts. *Cognitive Therapy and Research*, 14, 257–277.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 561–571.
- Bellack, A. S., Morrison, R. L., Mueser, K. T., Wade, J. H., & Sayers, S. L. (1990). Role play for assessing the social competence of psychiatric patients. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 2, 248–255.
- Brooks, R. B., Baltazar, P. L., & Munjack, D. J. (1989). Co-occurrence of personality disorders with panic disorder, social phobia, and generalized anxiety disorder: A review of the literature. *Journal* of Anxiety Disorders, 3, 259–285.
- Cacioppo, J. T., & Petty, R. (1981). Social psychological procedures for cognitive response assessment: The thought listing technique. In T. V. Merluzzi, C.R. Glass, & M. Genest (Eds.), *Cognitive* assessment (pp. 309–342). New York: Guilford Press.
- Conger, J. C., & Conger, A. J. (1986). Assessment of social skills. In A. R. Ciminera, K. S. Calhoun, & H. E. Adams (Eds:), *Handbook of behavioral assessment* (2nd ed., pp. 526–560). New York: Wiley.
- Cromwell, R. L., Blashfield, R. K., & Strauss, J. S. (1975). Criteria for classification systems. In N. Hobbs (Ed.), *Issues in the classification of children* (Vol. I, pp. 4–25). San Francisco: Jossey-Bass.
- Derogatis, L. R. (1977). SCL-90–R: Administration, scoring, and procedures manual I. Baltimore: Clinical Psychometrics Research.
- DiNardo, P. A., & Barlow, D. H. (1988). Anxiety Disorders Interview Schedule–Revised. Unpublished manuscript, Phobia and Anxiety Disorders Clinic, University at Albany, State University of New York.
- Fisher, R. A. (1954). Statistical methods for research workers. Edinburgh, United Kingdom: Oliver & Boyd.
- Greenberg, D., & Stravynski, A. (1983). Social phobia [Letter to the editor]. *British Journal of Psychiatry*, 143, 526.
- Heimberg, R. G., & Holt, C. S. (1989). The issue of subtypes in the diagnosis of social phobia: A report to the social phobia subworkgroup for DSM-IV. Unpublished manuscript, American Psychiatric Association.

- Heimberg, R. G., Klosko, J. S., Dodge, C. S., Shadick, R., Becker, R. E., & Barlow, D. H. (I 989). Anxiety disorders, depression, and attributional style: A further test of the specificity of depressive attributions. *Cognitive Therapy and Research*, 13, 21–36.
- Holt, C. S., Heimberg, R. G., & Hope D. A. (1992). Avoidant personality disorder and the generalized subtype in social phobia. *Journal of Abnormal Psychology*, 101, 318–325.
- Kuhs, H. (1991). Anxiety in depressive disorders. Comprehensive Psychiatry, 32, 217–228.
- Liebowitz, M. R., Fyer, A. J., & Gorman, J. M. (1985). Specificity of lactate infusions in social phobia versus panic disorders. *American Journal of Psychiatry*, 142, 947–950.
- Liebowitz, M. R., Gorman, J. M., Fyer, A. J., & Klein, D. E (1985). Social phobia: Review of a neglected anxiety disorder. Archives of General Psychiatry, 42, 729–736.
- Loranger, A. W. (1988). Personality Disorder Examination manual. Yonkers, NY: D. V. Communications.
- Marks, I. M. (1970). The classification of phobic disorders. British Journal of Psychiatry, 116, 377–386.
- Marks, I. M. (1985). Behavioral treatment of social phobia. Psychopharmacology Bulletin, 21, 615–618.
- Merluzzi, T. V., & Biever, J. (1987). Role-playing procedures for the behavioral assessment of social skill: A validity study. *Behavioral Assessment*, 9, 361–377.
- Mueser, K. T., Bellack, A. S., Morrison, R. L., & Wade, J. H. (1990). Gender, social competence, and symptomatology in schizophrenia: A longitudinal analysis. *Journal of Abnormal Psychology*, 99, 138–147.
- Quay, H. C. (1986a). Classification. In H. C. Quay & J. S. Werry (Eds:), Psychopathological disorders of childhood (3rd ed., pp. 1–34). New York: Wiley.
- Quay, H. C. (1986b). A critical analysis of DSM-III as a taxonomy of psychopathology in childhood and adolescence. In T. Millon & G. L. Klerman (Eds.), Contemporary directions in psychopathology: Toward the DSM-IV (pp. 151–165). New York: Guilford Press.
- Rapee, R. M., Mattick, R., & Murrell, E. (1986). Cognitive mediation in the affective component of spontaneous panic attacks. *Journal of Behavior Therapy and Experimental Psychiatry*, 17, 245–253.
- Reich, J., Noyes, R., & Troughton, E. (1987). Dependent personality disorder associated with phobic avoidance in patients with panic disorder. *American Journal of Psychiatry*, 144, 323–326.
- Reich, J., Noyes, R., & Yates, W. (1988). Anxiety symptoms distinguishing social phobia from panic and generalized anxiety disorders. *Journal of Nervous and Mental Disease*, 176, 510–513.
- Schneier, E. R., Spitzer, R. L., Gibbon, M., Fyer, A. J., & Liebowitz, M. R. (1991). The relationship of social phobia subtypes and avoidant personality disorder. *Comprehensive Psychiatry*, 32, 496–502.
- Schwartz, R. M., & Garamoni, G. L. (1989). Cognitive balance and psychopathology: Evaluation of an information processing model of positive and negative states of mind. *Clinical Psychology Review*, 9, 271–294.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. Psychological Bulletin, 86, 420–428.
- Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory* (Rev. ed.). Palo Alto, CA: Consulting Psychologists Press.
- Spitzer, R. L., & Endicott, J. (I 978). Medical and mental disorder: Proposed definition and criteria. In R. L. Spitzer & D. E Klein (Eds.), *Critical issues in psychiatric diagnosis* (pp. 15–39). New York: Raven Press.
- Spitzer, R. L., Williams, J. B. W., Gibbon, M., & First, M. B. (1990). Structured Clinical Interview for DSM-111-R. Washington, DC: American Psychiatric Press.
- Turner, S. M., & Beidel, D. C. (1989). Social phobia: Clinical syndrome, diagnosis, and comorbidity. *Clinical Psychology Review*, 9, 3–18.

- Turner, S. M., Beidel, D. C., Dancu, C. V., & Keys, D. J. (1986). Psychopathology of social phobia and comparison to avoidant personality disorder. *Journal of Abnormal Psychology*, 95, 389–394.
- Turner, S. M., Beidel, D. C., Dancu, C. V., & Stanley, M. A. (1989). An empirically derived inventory to measure social fears and anxiety: The Social Phobia Anxiety Inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 1, 35–40.
- Watson, D., & Friend, R. (1969). Measurement of social evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33, 458–468.

Wolpe, J., & Lazarus, A. A. (1966). Behavior therapy techniques. New York: Pergamon.