Differentiating social phobia from shyness

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ABSTRACT

To clarify the relationship between social phobia and shyness, this study examined the characteristics of highly shy persons with social phobia, highly shy persons without social phobia, and non-shy persons. Those with social phobia reported more symptomatology, more functional impairment, and a lower quality of life than those without social phobia. About one-third of the highly shy without social phobia reported no social fears, highlighting heterogeneity of the shy. The social phobia group reported similar levels of anxiety as the shy without social phobia during analogue conversation tasks, but they reported more anxiety during a speech task. The social phobia group performed less effectively across tasks than those without social phobia. All groups' perceptions of anxiety and effectiveness during behavioral tasks were consistent with ratings of independent observers. None of the groups differed on psychophysiological measures. Results are discussed in the context of theoretical models of social phobia.

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1. Introduction

From the time social phobia was introduced as a psychiatric disorder in the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* in 1980 (DSM-III; APA, 1980), researchers and clinicians have theorized about the relationship between social phobia and shyness. Social phobia is a well-defined clinical disorder in the DSM-IV (APA, 1994), whereas shyness is a less well-defined lay term (Harris, 1984). The defining features of both are strikingly similar, however, and include somatic symptoms (e.g., trembling, sweating, blushing), cognitive symptoms (e.g., fear of negative evaluation), and behavioral symptoms (e.g., avoidance of social situations). Despite these shared features, the relationship between social phobia and shyness remains unclear. Furthermore,

shyness is a condition many view as a normal personality trait that should not be confused with social phobia (see Carducci, 1999; Stein, 1996).

One hypothesis about the relationship between shyness and social phobia places both conditions on a continuum or spectrum with social phobia conceptualized as "extreme shyness" (Marshall & Lipsett, 1994; McNeil, 2001; Stein, 1999). Accordingly, those with social phobia have more severe symptoms and are more impaired by their discomfort in social situations than shy persons. This conceptualization is consistent with the notion that shyness is a subclinical condition or a normal facet of personality that is not pathological (Carducci, 1999). The second hypothesis is that shyness and social phobia are partly overlapping conditions, with shyness being a broader construct than social phobia (Beidel & Turner, 1999; Heckelman & Schneier, 1995; Heiser, Turner, & Beidel, 2003). According to this hypothesis, shyness and social phobia may be qualitatively different in some regards, rather than varying only in degree.

Some empirical investigations have begun to define the boundary between shyness and social phobia. In one study (Chavira, Stein, & Malcarne, 2002), rate of social phobia was significantly higher among a highly shy sample compared to a normative shy sample, providing partial support for the continuum hypothesis. However, only half of the highly shy persons in the study had generalized social phobia, lower than would be expected

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based on a continuum model. Similarly, when rates of social phobia and other psychiatric disorders were examined among a population who self-identified as shy (Heiser et al., 2003), shyness was associated with psychopathology in general and not solely with social phobia. In addition, a significant proportion of shy persons had no psychiatric diagnoses.

Both prior studies suggest that higher levels of shyness are associated with increasing rates of social phobia, but that the conditions are not the same. Both studies also suggest that the relationship between shyness and social phobia is limited to those with generalized social phobia, with little to no association between shyness and specific social phobia. This finding is consistent with clinical observations of persons with speech anxiety, for example, who do not appear to be shy or report being shy and of persons with generalized social phobia who typically report that they "have always been shy" (Beidel & Turner, 1998; Turner, Beidel, & Townsley, 1990).

In summary, past research indicates that, although shyness and social phobia are related, most shy persons do not meet criteria for social phobia. The pertinent question becomes: are there dimensions that distinguish the subset of highly shy persons with generalized social phobia from other highly shy persons who do not meet criteria for social phobia? The purpose of this study was to determine what factors, if any, discriminate generalized social phobia from shyness, restricting the analysis to highly shy individuals. Because shyness has been shown to be associated with multiple psychological problems, the shy group in this study consisted of those without psychiatric diagnoses so that comparisons between a "purely" shy group and those with social phobia could be made.

2. Methods

2.1. Participants

The sample for this study consisted of 78 individuals. Most of the participants ($n = 61$; 78.2%) were students at the University of Maryland, College Park who were enrolled in introductory psychology courses. The other 17 participants were recruited from persons seeking participation in a social phobia treatment study being conducted at the Maryland Center for Anxiety Disorders at the University of Maryland, College Park. Ten of these treatment seeking participants were also students at the University of Maryland, College Park. The other seven were members of the general community. The sample consisted of 34 women (43.6%) and 44 men (56.4%). Their ages ranged from 18 to 41, with a mean age of 20.7 years ($SD = 4.3$ years). Of the 78 participants, 64.1% were Caucasian, 14.1% were Asian, 14.1% were African American, 5.1% were Hispanic, and 2.6% were of other racial and ethnic groups.

The sample included highly shy persons with generalized social phobia ($n = 25$), highly shy persons without generalized social phobia or other psychiatric diagnoses ($n = 26$), and non-shy persons without psychiatric diagnoses ($n = 27$). For ease of presentation, these groups are referred to hereafter as the social phobia group, the shy group, and the non-shy group, respectively. Shyness was assessed using the 13-item Revised Cheek and Buss Shyness scale, where scores can range from 13 to 65 (RCBS; Cheek, 1983; Hopko, Stowell, Jones, Armento, & Cheek, 2005). Psychiatric diagnoses were determined through use of a structured or semi-structured interview schedule. Specifically, participants recruited from introductory psychology courses were assessed with the Composite International Diagnostic Interview-Automated, Version 2.1 (CIDI-Auto; World Health Organization, 1993), a fully structured diagnostic interview that was self-administered on a computer. Adequate psychometric properties of the CIDI have been

established (Andrews & Peters, 1998; Blanchard & Brown, 1998; Peters & Andrews, 1995; Peters, Clark, & Carroll, 1998; Wittchen, 1994). In addition, validity of the CIDI with a similar study sample was established in a prior study on shyness and social phobia (Heiser et al., 2003). Participants recruited from the social phobia treatment study at the Maryland Center for Anxiety Disorders were assessed with the Anxiety Disorders Interview Schedule for DSM-IV, a clinician-administered, semi-structured interview (ADIS-IV; Di Nardo, Brown, & Barlow, 1995). Information on social fears, social avoidance, and physical symptoms was gathered via these interview schedules.

Participants were included in the social phobia group if they met DSM-IV criteria for generalized social phobia. Seven of the individuals with social phobia (28.0%) had additional psychiatric diagnoses. Specifically, one participant had a comorbid diagnosis of Major Depressive Disorder (MDD); three participants had a comorbid diagnosis of Generalized Anxiety Disorder (GAD); one participant had a diagnosis of GAD and Substance Abuse; one participant had a diagnosis of MDD and Substance Abuse; and one participant had comorbid diagnoses of GAD, Dysthymia, and Substance Abuse. Participants in the other two groups were only included if they did not have psychiatric disorders.

2.2. Self-report measures

To assess negative social cognitions, the participants completed the Social Thoughts and Beliefs Scale, an empirically derived, 21-item, self-report inventory of maladaptive social cognitions (STABS; Turner, Johnson, Beidel, Heiser, & Lydiard, 2003). The Quality of Life Inventory (QOLI; Frisch, Cornell, Villanueva, & Retzlaff, 1992) was used to assess participants' perceptions of their well-being and satisfaction with life. The Liebowitz Self-Rated Disability Scale (LSRDS; Schneier et al., 1994) was used to assess impairment due to emotional problems, in this case social fears. To assess participants' preference for affiliation with others, the Cheek and Buss Sociability Scale, a five item self-report scale, was completed by participants (Cheek & Buss, 1981).

2.3. Physiological assessment

Skin conductance and heart rate were monitored continuously throughout a series of behavioral assessment tasks using the Biopac MP100 Data Acquisition System. Biopac's AcqKnowledge 3.7 software was used to analyze the data. Heart rate was measured using the noninvasive NIBP100 for the first 25 participants. This device provides a measurement of heart rate via assessment of blood pressure. The device uses a wrist sensor that applies variable pressure directly above the radial artery, continuously measuring pulse pressure. Because calibration of this device for each participant proved to be more time consuming than anticipated, for the remaining participants heart rate was measured using two pre-gelled disposable electrodes placed by the participant on his or her rib cage. For all participants, palmar sweat gland activity (skin conductance level) was measured in microSiemens with the Biopac GSR100C using a constant voltage method. Silver–silver chloride, unpolarizable, finger electrodes containing isotonic recording gel were placed on the participants' index and middle fingers of the non-dominant hand. One ground was placed on the lower arm.

3. Procedures

3.1. Participant recruitment

The shyness scale (the RCBS) was completed by 1303 introductory psychology students. The mean score was 33.0