Social Fitness Training, Restructuring Self-blaming Attributions and Reducing Shame: Preliminary Data

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ABSTRACT

Self-blaming attributions and shame are common in the chronically shy (Henderson, 1992; 1993; in press). In order to examine whether maladaptive attribution styles and shame could be changed in brief treatment with college students, specific attributional restructuring techniques were used in a pilot study with college students in eight-week treatment groups. Results indicated that students significantly reduced maladaptive and self-blaming attributions in their most challenging social situations and significantly reduced shame. They also obtained significant reductions in fear of negative evaluation, social anxiety, social avoidance and distress, guilt, and depression. We further hypothesized that shy students who were also more generally fearful would score higher in self-blame and shame than the less fearful. Results were consistent with our hypothesis.

Keywords: Shyness; Social Phobia; Avoidant personality disorder; Attributions; Self-blame; Shame

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Introduction

Self-enhancement Bias

A self-enhancement bias is characteristic of normal functioning in our culture and maintains motivation and self-esteem. This attributional bias involves the dual process of giving oneself credit for success and externalizing failure or assigning it to specific, temporary, and controllable factors. Shy people reverse this bias, at least in social situations (Arkin, Appelman & Burger, 1980; Buss & Scheier, 1976; Girodo, Dotzenroth & Stein, 1981; Pilkonis & Zimbardo, 1979; Zimbardo, Pilkonis & Norwood, 1975) . Shys take credit for failure and externalize success or assign success to specific, temporary, often uncontrollable factors.

Reversal of the Self-enhancement Bias and Self-blame

This reversal of the self-enhancement bias seems to be closely related to self-blame, but is not necessarily identical to it. Self-blame adds a sense of castigation or reprehensibility. Although it is possible for someone to be happy with a modest or accurate view of their social attainments, clinical observation of shy clients has suggested that some shy people do blame themselves for unsuccessful social outcomes and experience painful states of shame, which are associated with considerable self-castigation (Henderson, 1992) .

Fearfulness: a Significant Predictor of Self-blame and Shame

When asked directly to rate whether or not they thought they were worthy of blame in hypothetical unsuccessful social situations, shy college students, who were also generally fearful, were more likely to say they were (Henderson, 1992). In fact, fearfulness was a significant predictor of both self-blame and shame, while shyness alone was a significant predictor of shame, but not self-blame. Self-blame was exacerbated when the fearful shy person was high in the tendency to focus on inner thoughts and feelings.

A study of high school students revealed that those who were both shy and self-blaming were considerably more fearful of negative evaluation, distressed and avoidant (Henderson, 1993) than both non-shy student peers and shy students who were not self-blaming. Unfortunately, many shy young people avoid socialization experiences that could counteract these self-blaming tendencies.

The theory that Henderson developed, and has been elaborating in relation to these findings, is called Social Fitness Theory. The basic idea is that any negative emotional state, in combination with private self-consciousness (a tendency to focus on internal thoughts and feelings) becomes part of a reciprocal process in which negative emotional states and negative thoughts amplify each other, causing rising psychological agitation, which the shy person terminates by withdrawal. However, painful thoughts and rumination persist, promoting further withdrawal. Negative emotional states and negative thoughts escalate to construct a highly elaborated neural network that serves as a powerful heuristic to organize incoming information, thereby establishing and elaborating entrenched negative beliefs about the self (Henderson, 1994a). A negative bias in the self-concept ensues.

There is empirical evidence for a negative bias in the self-concept (O'Banion & Arkowitz, 1977). Shys remember more negative than positive feedback when they are given equal amounts of each, in contrast to non-shys, who remember more positive than negative feedback. People who are shy also remember negative self-descriptions better than positive self-descriptions (Breck & Smith, 1983) .

Age of Onset in Fearful vs. Non-fearful Shys

Age of onset was also assessed in fearful vs. non-fearful shys because previous research suggested an earlier onset in fearful shyness than in other kinds of shyness (Buss, 1980; Kagan et al., 1994). It stands to reason that the state of fear could draw attention inward and promote seeing the self as responsible for external events early in life, particularly in view of empirical evidence for the association of self-awareness and assumed responsibility more generally (Fenigstein & Levine, 1984). Retrospective studies with fearful and non-fearful shy college

students, however, have failed to discriminate between them in recalled age of onset (Bruch, Giordano & Pearl, 1986).

Hypotheses

1) Shy college students attending group therapy for shyness would demonstrate maladaptive and self-blaming attributions.
2) Fearful shys would be more self-blaming than non-fearful shys.
3) Negative and self-blaming attributions would decrease in response to the use of specific attributional restructuring techniques.
4) Shame that accompanies self-blame would be reduced.
5) Because a negative attribution style is characteristic of depression as well as shyness, scores on a depression inventory should also be reduced.
6) Students with avoidant personality disorder would be more self-blaming and shame-prone than those diagnosed with social phobia alone, due to longstanding patterns of avoidance and emotional distress.

Method

We tested the effectiveness of attributional and self-concept restructuring in eight-week Social Fitness treatment groups at the Stanford Student Health Center. Social Fitness Training is a cognitive-behavioral group therapy treatment developed by Henderson, based on Zimbardo's early research (Henderson, 1994a). We see social fitness as analogous to physical fitness, and use a health maintenance model of education and training, emphasizing ongoing "workouts" to maintain social fitness and emotional well-being.

Subjects

Subjects included undergraduates and graduate students, 15 males and 17 females, ranging in age from 18 to 41 years, who participated in eight-week treatment groups conducted at Cowell Student Health Center. Two students were African American, eight were Asian-American, one was Hispanic, two were Hindu, two were Islam, and sixteen were Caucasian. Twenty-seven were from the United States, one was from Iran, one was from Austria, and one was from Poland, one was from India, and one was from Turkey. Five students were taking medication. Three were taking Prozac, one was taking Paxil, and one was taking Zoloft. Medication had been prescribed either for social anxiety or depression. Thirty students (94%) met DSM-IV (DiNardo, Brown & Barlow, 1994) criteria for Social Phobia, most with at least two situations that were highly distressing or avoided altogether. Eight met DSM-IV criteria for avoidant personality disorder.

Pre- and Post-test Measures

Fear was measured by the four-item fearfulness subscale of the Emotionality, Activity, and Sociability Temperament Survey (EAS) (Buss & Plomin, 1984). The range of possible scores was from 4 to 20. The retest reliability of the EAS was .75. No alpha coefficient was reported.

Evaluation Apprehension was measured by the Brief Fear of Negative Evaluation Scale (BFNE) (Leary, 1983). This scale is a revision of the original Fear of Negative Evaluation Scale (FNE) (Watson & Friend, 1969) which consisted of 30 true-false items. The brief version contains 12 of the original items which are answered on five-point scales (1, not at all characteristic, to 5, extremely characteristic). Scores range from 12 to 60. Cronbach's alpha was reported at .90, and four-week test-retest reliability at .75.

Discomfort and Avoidance was measured by the Social Avoidance and Distress Scale (SAD) (Watson & Friend, 1969) , a 28-item scale with a KR-20 reliability of .94, an alpha coefficient of .90, and a test-retest correlation of .68 over four weeks.

Public self-consciousness, social anxiety, and private self-consciousness were measured by the 15-item Revised Self-Consciousness Scale (SCS-R) (Lennox, Welch, Wolfe, Zimmerman & Dixon, 1987) The SCS-R was used instead of the Self-Consciousness Scale (Scheier & Carver, 1985) because Lennox et al. (Lennox et al.,

1987) substituted neutral items for those in the original scale that referred to negative affect. This change resulted in lower correlations between public self-consciousness and social anxiety (r=.07) which increased the orthogonality of the scales. Scores on each subscale could range from 0 to 20. Lennox et al. reported values of coefficient alpha at .72, .75, and .78 for the respective subscales.

The Personal Feelings Questionnaire-2 (PFQ2) (Harder, Rockart & Cutler, 1993) was used to measure shame and guilt. This scale is a 22-item revision of an earlier 10-item scale (PFQ) (Harder & Lewis, 1986) with increased construct validity. Harder and Lewis reported that test-retest reliability of the original scale at two weeks was .85 and at five weeks was .78.

The Beck Depression Inventory (BDI), which shows adequate reliability, was used to measure depression. The version we used has a rating scale of 0-3 in response to statements about negative emotion and physical heath (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) .

The Shyness Attribution Questionnaire (SAQ) (Henderson, 1996) was used to measure attribution style and is a revision of an earlier adaptation of the ASAT III (Anderson & Arnoult, 1985; Anderson, Horowitz & French, 1983), in which subjects wrote down the major cause of the outcome of a given hypothetical situation and rated this cause on each of six causal dimensions using a nine-point rating scale.

In this revision subjects were asked to describe the three most challenging social situations from their own hierarchies and then to assume that the outcome was negative, or that the situation had not gone well. In addition, following the ratings of attributions, subjects rated shame-based emotions on shame items from the PFQ (Harder & Lewis., 1986). The wording was changed from "how common the feeling is for you" to "how you are feeling at this moment" in order to change the questionnaire from a trait measure to a state measure.

The therapist asked the questions and recorded the subjects' responses in order to clarify any questions about what was meant by negative outcome. For example if a speech did not go well it was simply restated that it was just the subjective experience or belief that it didn't go well that was relevant. If a date did not go well the therapist said, "you were disappointed in the evening." If a request for a date didn't go well, it was simply that the other person said no. This procedure raises the demand characteristics of situation, but the experimenters decided that clarity and comprehensibility would take precedence. The three most difficult situations in the subjects' own hierarchies were chosen as situations to be rated, because these were the ones that were relevant to the specific person and therefore would be the most telling.

The ADIS-IV-L (Di Nardo, Brown & Barlow, 1994) was used to assess the presence of shyness/social phobia and the absence of marked depression, suicidality, and thought disorders. The twenty-two subjects who were assessed for the presence of Avoidant Personality Disorder were diagnosed with a version of Loranger's Personality Disorder Exam (Loranger, 1987) , adapted by the first author for DSM-IV. Inclusion

criteria consisted of a self-description of shyness that significantly interfered with academic and/or social life. Exclusion criteria consisted of the presence of marked depression, suicidality, or a thought disorder that might present a risk to the student during exposure to simulations of feared social situations.

Procedure

The study was conducted at the Stanford University Student Health Center as part of an ongoing shyness treatment program consisting of eight-week shyness groups offered each quarter since autumn 1990. Begun in the spring of 1995, the study was completed in the spring of 1997. The first author conducted the groups and a psychology or psychiatry intern or staff person served as co-therapist. Treatment consisted of simulated exposures, accompanied by the cognitive restructuring techniques developed by Beck (Beck, Brown, Steer, Eidelson & Riskind, 1987), and modified by Burns (1980), Heimberg (Heimberg & Barlow, 1988) and Persons (1989). We added the specific Attributional and Self-concept restructuring techniques (Henderson, 1994a). The exposures were taken from individual hierarchies constructed during the initial evaluation. Members of each therapy group conducted the challenges to negative thoughts for each other after the first exposure. The therapists assisted by adding questions if necessary, and also by helping students to formulate challenges.

For example, students tended to be unaware that when asked for specific behavioral evidence for a thought such as, "I won't be able to think of something to say,"

they responded with another automatic thought. "I can't EVER think of anything." They sometimes responded with a negative emotion which they confused with behavioral evidence. "I felt so self-conscious that anyone could see I couldn't think of anything." When pinned down to producing facts they couldn't. A conversation usually continued after a pause. Furthermore, no student failed to come up with something to say in a simulated exposure in the group. When students were challenging each others' thoughts initially, they would accept these responses and the therapists would help them to ask again for specific behavioral evidence. Within a few sessions they became more skilled.

In-vivo exposures consisted of behavioral homework which was planned in the group and executed in natural relevant settings between sessions. They were taken from the hierarchies according to the behavioral goals each client specified in the initial evaluation. Examples of entering feared situations and performing feared behaviors included: speaking in class, initiating conversations, approaching professors from whom students wanted clarification or guidance, giving talks, or attending job interviews. Time involvement consisted of an individual pre-and post-treatment evaluation (a total of two to four hours) and eight group therapy sessions of two hours each. Participants were recruited by the usual advertisement of psychotherapy groups through the Stanford Daily student newspaper, and 500 flyers that were distributed across campus each term.

Results

Overview

Our hypothesis that the high-fear shys would be higher in self-blame was confirmed. Our second hypothesis, that self-blaming attributions would decrease with specific attributional-restructuring techniques was also confirmed. Students receiving our Social Fitness Training showed significant reductions in self-blame, as well as other negative attributions in situations that were the most problematic in their lives. The emotion of shame in these situations was also significantly reduced. Our third hypothesis, that depression would be reduced as a consequence of treatment was also confirmed. The treatment was also effective in significantly reducing guilt, fear of negative evaluation, social anxiety, and social avoidance and distress. We also hypothesized that students with APD would be more self-blaming and shame-prone than those diagnosed with Social Phobia without APD. Results were in the hypothesized direction, but were not statistically significant. See Table 1. for general treatment effects.

Attrition Effects

Twenty-three students of thirty-two (72%) completed treatment. Some decided the group was not appropriate for them, some had schedule conflicts or failed to come to the final sessions as pressure to study for finals increased. There were no differences in pre-test scores between those who completed treatment and those who did not. A few students who completed treatment did not complete post-testing. There was a trend for those with APD to be more likely to complete treatment ($p. < .10$) than those who did not receive the diagnosis. All eight students who met criteria for APD completed treatment. All students who were taking medication completed treatment.

Treatment Impact

The average self-reported goal attainment on a scale of 1 to 10 was 7.5, and the average reduction in anxiety level (subjective units of distress from 0 to 100) was 33. Sixteen of 26 (62%) social phobics who completed treatment no longer met criteria for social phobia . Interestingly, there were also significant reductions in private self-consciousness, F (1, 23) = 6.33, p < .02, and public self-consciousness, F (1, 23) = 16.27, p < .001.

Self-blame and Shame in High-fear Shys vs. Low-fear Shys

In order to test the hypothesis that shy individuals who were also fearful would be higher in self-blaming attributions and in shame, clients were divided into high and low fear categories, with 3 as the cutoff for high fear. The mean of the high-fear group scores was 3.5, and 2.4 for the low-fear group.

The high-fear group was significantly higher than the low-fear group in pre-test self-blame scores $\underline{t}(23) = 2.59$, $p < .02$, with the high-fear group's self-blame scores (Pre M = 6.1, Post M = 2.5), showing a greater change. In fact, their scores were equivalent to the low-fear group (Pre M = 3.7; Post M = 2.4) by the end of treatment. An analysis of covariance, however, did not reveal the difference to be statistically significant when pre-test fear scores were taken into account. Furthermore, being in the high-fear group did not predict changes in self-blame scores. What did predict change in self-blame was private-self consciousness, adjusted r^2 accounting for 69% of the variance, $\underline{F}(1, 12) = 30.38$, $p < .0001$. The correlation between change in self-blame and private-self-consciousness was .87. Private self-consciousness was also correlated with self-blame at pre-test ($r=.47$, $p < .05$).

The high-fear group was higher than the low-fear group in PFQ scores (state-shame accompanying negative attributions) at pre-test, $\underline{t}(23) = 2.0$, $p < .06$ (M = 3.0, M = 2.5), approaching significance, and groups did not differ at post-test. The high-fears were significantly higher in internal, global and stable attributions at pre-test, $\underline{t}(23) = 4.0$, $p < .001$; $\underline{t}(23) = 5.5$, $p < .0001$; $\underline{t}(23) = 5.2$, $p < .0001$, and did not differ at post-test, although global attributions were marginally, but not significantly, higher, $\underline{t}(15) = 1.8$, $p < .10$.

High-fear Shys vs. Low-fear Shys on Treatment outcome Variables

There were no differences between groups in treatment completion or goal attainment, but the high-fear group reported a greater drop in anxiety level, 37 points out of 100, compared to 27 points, $t(23) = 2.1$, $p < .05$.

The high-fear group reduced internal attributions for negative social outcomes more than did the low-fear group, an effect which approached significance, $F(1, 16) = 3.35$, $p < .09$. There was a significant interaction effect in attributions of control, $F(1, 16) = 5.66$, $p < .04$. While the high fear group reduced attributions of control (Pre M = 5.1, Post M = 3.9), the low fear group increased their belief in control (Pre M = 4.1, Post M = 5.5). This may be due to the fact that the self-blaming high-fear group took too much responsibility for social interaction and began to share the responsibility with interaction partners. The low fear group may have been passive in interaction in order to avoid anxiety. They may have begun to believe they could take more control.

The high-fear group had higher depression scores at pre-test, $t(31) = 2.59$, $p < .01$ (M = 14.1, M = 6.2), but, following treatment, did not differ from the low-fear group, with both groups in the normal range. The high-fear group also had significantly higher scores on the BFNE scale at pre-test, $t(32) = 3.8$, $p < .001$ (M = 3.2, M = 2.6), which disappeared at post-test. There were no differences between groups in the SCSR sub-scales of public self-consciousness and social anxiety, nor were there differences in SAD scores at either pre- or post-testing.

A significant interaction in the repeated-measures analysis was in SAD scores, $F(1, 26) = 4.17$, $p < .05$. The high-fear group mean at pre-test was 16.3 (SD 7.3), and 12.9 (SD 8.3) at post-test, in contrast to the low-fear group whose mean at pre-test was 17.5 (SD 6.0) and 10.0 (SD 5.2) at post test, which suggests that the low-fear group may have made more progress in reducing social avoidance than their high-fear peers. However, because SAD scores have been found to be related to general distress rather more than to specific avoidance patterns in some studies (Heimberg, 1988), a greater reduction in distress may be the more salient issue.

Early Fearful Shyness and Age of Onset

An additional set of hypotheses were tested that related to Buss's notion that fearful shyness occurs earlier in life than other kinds of shyness, usually before five years old. Eleven subjects had an early onset, age 5 or less. Thirty-three had a later onset, six years or older. The high fear group did not report an earlier onset. Early onset was reported in four of the high fear category and seven of the low fear category. If fearful shyness occurs earlier, it might also follow that those who had the earliest onset of shyness would be currently higher in fearfulness, private self-consciousness, self-blame, and shame. Contrary to expectation, there were no differences in fear between the early and late onset groups and there were no differences in attribution style, private self-consciousness, state shame, or trait shame. There were also no differences between early and late onset with respect to depression, fear of negative evaluation, guilt, or public self-consciousness.

However, those with an early onset were higher in social anxiety, t (31) = 2.58, p < .02 at pre-test (M = 4.0, SD .51 vs. M = 3.4 SD, .71), and at post-test, t (21) = 2.09, p < .05 (M = 3.43, SD .37 vs. M = 2.7 SD, .84). In addition, although there were no differences in SAD scores, t (31) = 1.63, p < .12 at pre-test (M = 19.64, SD 5.03 vs. M = 15.9 SD, 6.94), there were significant differences at post-test t (21) = 2.63, p < .02 (M = 17.5, SD 4.18 vs. M = 9.87SD, 6.72), with late onset students showing a greater reduction in SAD scores, in fact moving into the normal range.

APD Results

All eight students who met criteria for APD completed treatment and six of the eight no longer met criteria (75%). Although they were slightly higher in self-blaming attributions, stability and globality, the difference was not significant. They were also not higher in reported state-shame in interpersonal failure situations, and in trait-shame. It is likely that there were too few subjects in this study who met criteria for APD to investigate this hypothesis adequately.

Medication

Those who were taking medication obtained significantly greater reductions in EAS scores, F (1, 18) = 5.14, p < .05 (those taking medication were divided equally into the high and low fear group). They also reduced their internal attributions more, F (1,

14) = 7.24, $p < .02$, and there was a trend toward greater reductions in self-blame, F (1, 14) = 3.46, $p < .09$. Self-blame means were 7.2 at pre-test for those on medication and 2.7 at post-test, in contrast to 4.8 and 2.2, in the group that was not on medication.

Gender

Other interesting findings were in relation to gender. A significantly greater number of females than males were in the high fear group, X^2 (32) = 9.91, $p < .002$), even though overall females were not higher than males in scores on the EAS scale. Although gender frequencies were identical as to the presence at pre-test of APD (of the 22 subjects who were assessed, 4 females and 4 males met criteria), at post-test there was a difference that approached significance, X^2 (16) = 3.54, $p < .07$), with no females and two males who completed treatment meeting DSM-IV criteria at post-test. There was a trend toward higher trait shame scores for women at pre-test, t (31) = 1.78, $p < .09$ and at post-test, t (21) = 2.0, $p < .06$. Despite these few interesting gender effects, the rest of our results reveal no significant effects of gender on: state shame, internal, global, stable, controllable, intentional, self-blaming attributions, fear reduction, fear of negative evaluation, depression, social anxiety, private or public self-consciousness, and guilt scores. There were no interactions. Nor were there gender differences in completion of treatment.

Discussion

Overview

The major purpose of this study was to demonstrate the clinical effectiveness of attributional and self-concept restructuring in short-term shyness treatment groups. Results confirm that attribution style in the most difficult situations in the lives of shy clients can be changed by using these techniques in brief treatment with college students.

Reductions in Negative Emotional States Related to Maladaptive Attribution Styles

Interestingly, focusing on negative attributions appeared to increase the expression of sadness and shame in the groups. Shame and depression were discussed frequently. More negative emotions may actually be evoked, as well as expressed, due to the discussion of self-blaming attributions and shame. These are less likely to be brought into awareness when the emphasis is only on the experience and reduction of anxiety or physiological discomfort, rather than on the shame and guilt that can accompany self-blaming attributions, particularly after an exposure to a feared social interaction. The increased awareness could lead to increased scores on the Beck depression inventory and the PFQ which might even result in higher scores in depression, shame and guilt at post-test. That this is not the case may be notable. However, the question remains as to whether or not specific attributional restructuring will lead to long-term reductions in negative emotions. Because negative attributions about the self are associated with shame and depression one could anticipate that as these attributions are challenged, negative emotion will be reduced in the long run.

Students appeared to be questioning and challenging negative beliefs about the self when interviewed individually at post-test. However, subjects seldom spontaneously mentioned changed beliefs about the self in their responses to the question, "What thoughts did you change or modify?" on a post-group evaluation questionnaire. A specific question regarding beliefs about the self may be necessary to obtain the information, and has been added to the questionnaire. However, it may not be realistic to

assume that a belief about the self constructed over many years will change radically in only eight weekly sessions. Changing these beliefs may depend on the degree to which negative beliefs about the self are consistently challenged after group treatment. These changes need to be evaluated in follow-up studies.

High-fears Shys in contrast to Low-Fear Shys

Some of our most interesting findings are in relation to the high fear group in contrast to the low fear group. The high fear group was strikingly higher than the low fear group at pre-test in self-blame, shame, and in internality, globality and stability. These findings are consistent with Henderson's Social Fitness theory. Social Fitness theory is based on the work of earlier research on emotional reasoning (Beck et al, 1979; 1987), private self-awareness and attributions of responsibility (Buss & Scheier, 1976) and vulnerability to negative emotional states (Ingram, 1990). Stated simply, in chronically shy individuals, negative affective states draw one's attention inward, make one more likely to assume responsibility for events, and to construe the self and the world in accordance with the particular negative feeling being experienced. If fear is that feeling, the world looks dangerous and the self less powerful than others. If shame is that feeling, others may appear contemptuous and the self vulnerable or inadequate. Fear and negative anticipatory thoughts on one dimension, and shame and negative thoughts about the self on another, can involve separate vicious cycles that feed into each other. Such a process may continue the cycle of negative thoughts, emotions, and behavioral withdrawal in a reciprocal fashion, where few negative thoughts can be challenged by direct reality testing.

Our earlier college student study suggested that fearful individuals might benefit the most from attributional-style restructuring because fearfulness was a significant predictor of self-blame (Henderson, 1992). As hypothesized, the high-fear group reported greater reductions in self-blame and shame in their most challenging social situations than the low-fear group, but the differences between the groups were not significant when pre-test fear scores were taken into account. Furthermore, when we calculated change scores, membership in the high fear group did not predict changes in self-blame. What did predict reductions in self-blame was private self-consciousness. Our earlier study had revealed that the greatest amount of self-blame was present in people who were high in both fear and private self-consciousness. Therefore, the tendency to focus inward may well keep the vicious cycles going, but the knowledge that the inward focus contributes to the vicious cycle may contribute to cognitive control and self-regulation. If I know that a negative emotional state may influence my thinking precisely because I am aware of internal states, I can distract myself until I am in a neutral emotional state before I think about my performance or plan what I want to do next time. I can also seek more objective feed-back from others. In addition, if one is already aware of one's thoughts and feelings, it may be easier to identify and then deliberately change them.

The high-fear group continued to remain higher in *trait* shame and guilt than did the low-fear group. An explanation for this result may be that these tendencies are long-standing, automatic and unconscious habits of thinking and feeling that are applied reflexively across many situations. Therefore, they simply take time to change. The high-fear group also had higher depression and fear of negative evaluation scores at pre-test, suggesting more frequent negative emotional states in general than the low fears.

Their private self-consciousness scores were not higher at pre-test which challenges the notion of their being more chronically self-focused. It is possible that only when a situation provokes fear or shame, do they become more self-focused. This hypothesis is consistent with significantly higher state-shame scores following hypothesized negative social outcomes at pre-test than those of the low-fear group. It may be, however, that the important trait to study is the trait of self-awareness itself in combination with any negative state, fear being only one of them.

Inspection of individual responses to specific situations revealed variability across situations for individual clients, who changed an attribution in one situation, but not in another. Clinical observation suggested that this was related to how much students had practiced challenging negative attributions and how much they had been able to get themselves into a particularly challenging situation and to initiate new behaviors in that situation. For example, after approaching a professor to ask for help or speaking up in class, they began to recognize that dialogue was a shared responsibility, both the speaking and the listening skills. They could see that some situations promoted self-expression and dialogue while others did not.

Effects of Medication

Students on medication appeared to benefit more from treatment than those not on medication, and they were from both the low and high fear group, but caution needs to be exercised in drawing conclusions due to the small number of students receiving

medication. These results are consistent with some other studies of clinical populations, but results have been mixed, particularly at longer-term follow-up, so we await studies with larger samples (Heimberg et al., 1994; Schneier, 1999).

Future Research

Students are functioning academically and, to some extent socially, in most cases. They are living with room-mates, eating in cafeterias (even if alone), and usually attending classes. However, they meet DSM IV criteria for social phobia. The diagnosis is based on the degree of impairment and distress compared with peers, and on the degree of interference with personal and professional goals students are otherwise capable of achieving. It is interesting to note that while absolute scores may differ between community-based clinic samples and college treatment samples on some questionnaires, impairment relative to peers and relative to normative functioning in a given environment is probably constant across clinic and university samples. The implications of relative impairment may prove to be a fruitful topic for investigation.

The current study was a test of specific attributional and self-concept distortion techniques. A more rigorous study with control groups is necessary to compare our results with the results of other forms of therapy with shy and socially phobic individuals. We did not have independent clinical evaluators to assess the presence of social phobia and avoidant personality disorder in students at pre- and post-testing. The individual interviews are time-intensive (one to three hours at pre-test and one hour at post-test) and

we did not have the staff to conduct them. The first author conducted the evaluations and the groups which provides continuity, but sacrifices independent clinical evaluation at pre- and post-test. However, there was agreement as to diagnosis among staff members, psychological interns and psychiatric residents who participated in the groups in all cases.

We are encouraged by the overall significant pattern of these results documenting the utility of tailoring specific treatment modalities to subcategories of shy individuals. Conceptually relating dominant emotional, cognitive, and behavioral functioning of subgroups of shy and/or phobic clients to the primary treatment focus is a treatment strategy that our research commends and future research should expand upon and refine.

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Table 1 Mean pre- and post-test scores of shy students in treatment

	Pre-test Scores	Post-test Scores
Self-blame (n=17)	M = 5.4, SD = 2.4	M = 2.4, SD = 1.2+
Internal (n=17)	M = 7.0, SD = 1.3	M = 4.4, SD = 1.8+
Stable (n=17)	M = 6.9, SD = 1.6	M = 4.2, SD = 2.0+
Global (n=17)	M = 6.4, SD = 1.5	M = 4.4, SD = 2.0***
Shame (n=17)	M = 2.8, SD = .7	M = 1.8, SD = .9+
Depression (n=20)	M = 9.4, SD = 6.7	M = 5.9, SD = 5.8*
Guilt (n=19)	M = 1.7, SD = .6	M = 1.3, SD = .5*
Fear of Negative evaluation (n=20)	M = 3.1, SD = .5	M = 2.5, SD = 7**
Social Anxiety (n=18)	M = 3.7, SD = .7	M = 3.1, SD = .8+
Social Avoidance and distress (n=19)	M = 18.1, SD = 6.1	M = 13.0, SD = 7.1***

note. *$p < .05$; **$p < .01$; ***$p < .001$, +$p < .0001$

Table 2 Mean pre- and post-test scores of high and low fear groups

	High Fear Group		Low Fear Group	
	Pre-test Scores	Post-test Scores	Pre-test Scores	Post-test Scores
Self-blame	M = 6.1	M = 2.5	M = 3.7;	M = 2.4
Shame	M = 3.0	M = 2.0	M = 2.5	M = 1.7
Internal	M = 7.9	M = 4.7	M = 6.5	M = 3.9
Global	M = 7.4	M = 5.2	M = 5.3	M = 2.6
Stable	M = 8.1	M = 5.0	M = 5.9	M = 2.6
Control	M = 5.1	M = 3.9	M = 4.1	M = 5.5
Evaluation Fear	M = 3.4	M = 2.5	M = 2.9	M = 2.2
Depression	M = 10.1	M = 6.1	M = 7.8	M = 3.8

