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Perfectionism and Social Anxiety: Rethinking the Role of High Standards

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Abstract

Some researchers contend that high standards are an essential component of social anxiety. We tested this hypothesis in two independent samples. The consistent finding across samples was that higher scores on measures of high standards from two perfectionism scales predicted *lower* scores for social anxiety measures. These findings suggest *lower*, not higher, standards are involved in social anxiety, but more research is needed to clarify the implications of perfectionism, particularly the maladaptive form, in the context of social anxiety.

Keywords

perfectionism; social anxiety; psychometrics

1. Introduction

Studies suggest that perfectionism may be important in social anxiety disorder (e.g., as reviewed by Juster et al., 1996). Juster et al. make several points regarding social anxiety and perfectionism, including: (a) Perfectionism might be a risk factor for social anxiety or exacerbate it and (b) individuals with social anxiety may display perfectionism by holding unreasonably high standards for performance in social settings, interpreting any deviation from those standards as failure. Clark and Wells (1995) also contend that unrealistically high standards are a common, if not universal feature of people with excessive and disabling social anxiety. Empirical findings, however, have been inconsistent or contrary to this hypothesis (as reviewed by Alden, Ryder, & Mellings, 2002).

In a review of research on the relationship between perfectionism and social anxiety, Alden et al. (2002) suggest that (a) socially anxious individuals have generally lower expectations for their social performance and (b) the primary performance-related distress for those with social anxiety occurs when they have doubts about being able to meet others' standards. The differences between these points of view are echoed in three more general debates about the nature of perfectionism. First is the debate about whether perfectionistic standards can be understood primarily in an intrapersonal context, without reference to perceptions of other people's standards. The second is whether perfectionism is best understood as a unidimensional

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or multidimensional construct. The third is whether perfectionism related to high standards produces psychological impairment.

Regarding the first debate, researchers and theorists have argued for a focus on the individual (e.g., Shafran, Cooper, & Fairburn, 2002) or the interpersonal context (e.g., Hewitt, Flett, Besser, Sherry, and McGee, 2003). Shafran and Mansell (2001) define what they see as clinically-relevant perfectionism in terms of intrapersonal processes (i.e., desire to avoid making errors while in pursuit of high standards) and note that this construct may be correlated with, but not identical to, concerns about other people's standards. In contrast, Hewitt et al. suggest that interpersonal processes could be central to understanding how perfectionism relates to psychosocial functioning. Many authors have investigated both self-focused and interpersonal aspects of perfectionism (as reviewed by Dunkley, Blankstein, Masheb, & Grilo, 2006); however, our focus is on what Shafran and Mansell identify as the traditional perfectionism construct: High standards in addition to intolerance of failure or mistakes. Thus, we do not comment on the intrapersonal versus interpersonal perfectionism debate further in this paper.

The question of dimensionality remains, however. Perfectionism might consist of a unified construct involving high standards and poor tolerance for failure; alternatively these may be separate constructs. Many authors focus on multidimensional perfectionism (Hewitt & Flett, 1991; Frost, Marten, Lahart, & Rosenblate, 1990; Slaney, Rice, Mobley, Trippi, & Ashby, 2001; Dunkley et al., 2006); others contend that the clinically useful construct of perfectionism is unidimensional (Shafran et al., 2002; Shafran, Cooper, & Fairburn, 2003). Shafran et al. (2003) argue that *clinical* perfectionism can be considered excessive striving for high standards together with critical self-evaluation (Shafran et al., 2002). Multiple other researchers suggest that high standards and critical self-evaluation are disparate constructs and, further, that high standards are actually adaptive (see Stoeber & Otto, 2006, for a review).

Findings that high standards are adaptive address the third general debate identified above, which directly mirrors the more focused debate on social anxiety. Stoeber and Otto (2006) consider only those high in *both* high standards and critical self-evaluation to be unhealthy perfectionists, whereas those with high standards and low in critical self-evaluation are healthy perfectionists. Regarding the issue of clinically relevant perfectionism discussed by Shafran et al. (2002) and Dunkley et al. (2006), Stoeber and Otto note that it may be critical self-evaluation that is the crucial dimension. In support of this notion, Dunkley et al. (2006) concluded that self-criticism accounts for much of the relationship between perfectionism and psychological symptoms (e.g., anxiety) in samples of patients with binge eating disorder and non-clinical undergraduates.

Focusing more specifically on social anxiety, multiple studies have demonstrated that critical self-evaluation subscales of perfectionism measures relate to the diagnosis of social anxiety disorder (vs. no diagnosis and vs. other anxiety disorders; as reviewed by Shafran & Mansell, 2001). However, there appears to be no clear evidence that high standards have any specific relationship with social anxiety, despite the theories recounted above. Further, those studies that have assessed the relationship of components of perfectionism with social anxiety have generally concentrated on a single perfectionism measure. This is undesirable because it increases the likelihood that findings may be due to peculiarities of a particular measure. We have collected data regarding two perfectionism measures, which both include a high standards subscale and (at least) one subscale that assesses critical self-evaluation (e.g., regarding mistakes or failure to meet goals). Please refer to Table 1 for a representation of the different components of these scales.

The more well-researched of these scales is Frost et al.'s Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990), which assesses the presence of various kinds of high standards and critical self-evaluation. There is another scale called the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991), but we do not discuss that measure here. The FMPS has six subscales (see Table 1). Concern over Mistakes (CM) and Doubts about Actions (DA) assess self-critical thinking and worry regarding past decisions, respectively (Frost et al.), and are the only subscales that have been unequivocally linked to social anxiety in the literature. Individuals diagnosed with social anxiety disorder receive higher scores on DA and CM than controls; further, Saboonchi and Lundh (1997) found that CM and DA were significantly correlated with multiple measures of social anxiety. Studies have found that Personal Standards is either not significantly associated with unhealthy psychological functioning or is associated with healthy psychological functioning in populations ranging from undergraduates to people diagnosed with social anxiety disorder (Brown et al., 1999; Juster et al., 1996; Bieling, Israeli, Smith, & Antony, 2003). None of these studies demonstrated a relationship between the Personal Standards subscale and social anxiety disorder. However, the conclusion that high standards are unassociated with social anxiety is complicated by the fact that subsequent authors have recommended a different way to score the measure.

It has been proposed that the FMPS measures two basic aspects of perfectionism: (a) High personal standards and (b) concerns about evaluation. As defined by Frost, Heimberg, Holt, Mattia, and Neubauer (1993), the Maladaptive Evaluative Concerns (MEC) subscale draws from the FMPS's CM, DA, Parental Criticism, and Parental Expectations subscales. As such, the MEC assesses critical self-evaluation in addition to perceptions of parental perfectionism. In contrast, the Pure Personal Standards (PPS) subscale includes the Personal Standards items that were believed to not reflect distress related to negative evaluation (DiBartolo, Frost, Chang, LaSota, & Grills, 2004). MEC seems to be related to indicators of poor psychological functioning such as self-concealment and depression (DiBartolo, Li, & Frost, 2008). Researchers have reported finding a relationship between PPS and healthy psychological functioning (DiBartolo et al., 2004), but not depression or anxiety (DiBartolo et al., 2007).

Any findings focusing purely on one scale, however, may reflect idiosyncrasies of measurement as well as substantive results. We therefore have collected data regarding a second scale: the Almost Perfect Scale-Revised (APS-R), constructed by Slaney, Rice, Mobley, Trippi, and Ashby (2001) to measure both maladaptive (Discrepancy) and adaptive (High Standards, Order) elements of perfectionism. Maladaptive perfectionism is hypothesized to represent an individual's distress related to perceived failure to meet goals, whereas adaptive perfectionism involves perfectionistic thoughts and behaviors that one does not want to relinquish because of their perceived value (Slaney, Rice, & Ashby, 2002). The Discrepancy subscale measures maladaptive perfectionism by assessing the degree of chronic separation between high standards and eventual outcomes (e.g., "I am seldom able to meet my own high standards for performance"). As such, it also measures critical self-evaluation. In support of the construct validity of the APS-R, Slaney et al. (2001) found a moderate, positive correlation between Discrepancy and both the FMPS CM and DA subscales ($r = 0.55$ and $r = 0.62$, respectively). None of the correlations of the other FMPS subscales with Discrepancy exceeded 0.35 (Slaney et al., 2001).

To summarize, two distinct positions have been expressed in the literature regarding social anxiety and social anxiety disorder: Some authors have contended that holding high standards exacerbates social anxiety (e.g., Juster et al., 1996), whereas others have suggested that high standards may have no or inverse relationships with social anxiety (e.g., Alden et al., 2002). These positions are embedded within a larger set of debates about perfectionism in relation to clinical problems. To address our questions regarding high standards and social anxiety, we

used two archival datasets to test the relationship between two aspects of perfectionism: High standards and critical self-evaluation (as measured by subscales of the APS-R and FMPS) and social anxiety. In accordance with Alden et al., and consistent with overall research in the area, we hypothesized that critical self-evaluation, whether measured by the APS-R or FMPS, would be a positive predictor of social anxiety. Based on findings that measures of personal standards tend to be associated with indicators of adaptive functioning (e.g., positive affect) and not psychopathology, we hypothesized that high standards would not be a positive predictor of social anxiety. In each test, we included both the critical self-evaluation and high standards subscales as predictors because failure to do so might have led to misleading results due to shared method variance. Testing the relationship of high standards to social anxiety over and above the more obviously maladaptive aspects of perfectionism is necessary to demonstrate that the relationship found is not simply a reflection of the content of the rest of the items on a given scale.

2. Method

2.1. Participants

2.1.1. FMPS sample—The FMPS was tested in a sample of 128 primarily speech-anxious undergraduates at the University of North Carolina-Chapel Hill. Participants were recruited for an investigation of the effectiveness of video feedback and identified themselves as speech-anxious. The mean age for this sample was 19.46 ($SD = 2.94$). The sample was predominantly female ($n = 80$; 62.5%) and White ($n = 84$; 65.6%). Additional participants identified themselves as Asian American or Asian ($n = 10$; 7.8%), African American ($n = 21$; 16.4%), Latino/Latina ($n = 2$; 1.6%), multiracial ($n = 10$; 7.8%; percentages do not add to 100 due to rounding), and one individual did not specify her ethnicity. This archival dataset has been employed in several studies (e.g., Rodebaugh, 2004; Rodebaugh et al., 2004), but none of these studies have concerned the FMPS.

2.1.2. APS-R sample—This sample consisted of 383 unselected undergraduates. The mean age for this sample was 19.11 ($SD = 1.06$) years and one participant did not report her age. The sample was predominantly female ($n = 277$; 72.3%) and White ($n = 270$, 70.5%). Additional participants identified themselves as Asian or Pacific Islander ($n = 58$; 15.1%), African American ($n = 21$; 5.5%), Hispanic ($n = 14$; 3.7%), multiracial ($n = 14$; 3.7%), or not listed ($n = 6$; 1.6%; percentages do not add to 100 due to rounding). This archival dataset has been employed in several studies (e.g., Rodebaugh, Woods, & Heimberg, 2007), but none of these studies have concerned the APS-R.

2.2. Measures in Both Data Sets

2.2.1. The Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998)—The SIAS is a 20-item measure employing a 0 – 4 Likert-type scale. The items describe anxiety-related reactions to a variety of social interaction situations. Overall, research on the scale suggests good to excellent reliability and good construct and convergent validity (see Heimberg & Turk, 2002, for a review). When used for statistical analyses, the reverse-scored items are omitted here. Available evidence suggests that these items fail to load on the same factor as the other items (Rodebaugh, Woods, Heimberg, Liebowitz, & Schneier, 2006) and appear less related to social anxiety and more related to extraversion than is desirable (Rodebaugh et al., 2007). In both samples, internal consistency for the straightforward items was excellent ($\alpha s > .92$).

2.3. FMPS sample measures

2.3.1. The Frost Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990)—The FMPS subscales and broad factors are depicted in Table

1. The FMPS literature has been reviewed in more detail in section 1. In this sample, internal consistency was excellent for Concern over Mistakes ($\alpha = .90$) and very good for both Doubts about Actions ($\alpha = .81$) and Personal Standards ($\alpha = .86$). The Maladaptive Evaluative Concerns (MEC) subscale is the sum of all items from Concern over Mistakes, Doubts about Actions, Parental Criticism, and Parental Expectations. The Pure Personal Standards (PPS) subscale consists of five items from the original Personal Standards subscale (e.g., *I set higher goals for myself than most people*) that are believed to overlap less with MEC than Personal Standards does (DiBartolo et al., 2004). In this sample, internal consistency was excellent for MEC ($\alpha = .93$) and very good for PPS ($\alpha = .86$).

2.3.2. The Social Phobia Scale (SPS; Mattick & Clarke, 1998)—The SPS is a 20-item measure that uses a Likert-type scale ranging from 0 to 4. It assesses social anxiety related to being observed in a variety of situations. Research suggests good to excellent reliability and good construct validity for the SPS (see Heimberg & Turk, 2002, for a review). Internal consistency of the SPS was excellent in this sample ($\alpha = .91$).

2.3.3. The Speech Performance Questionnaire (SPQ; Rapee & Lim, 1992)—The SPQ is a 17-item (5 global items and 12 specific items) measure that uses a 0 to 4 Likert-type scale, allowing the rating of public speaking performance by the speaker or by observers. It was used by participants to rate their own speeches. The SPQ had adequate internal consistency in previous samples (above .75; Rapee & Lim, 1992). Internal consistency of the SPQ was very good in this sample ($\alpha = .88$).

2.3.4. The Self-efficacy scale—This scale consists of two items based on those used by Zane and Williams (1993). Participants are asked to rate their confidence on a scale ranging from 0 to 100 (a) that they will be able to perform the speech task and (b) that they will be able to perform the speech task adequately or as well as the average person. Internal consistency was very good for the self-efficacy scale in this sample ($\alpha = .86$).

2.3.5. The Personal Report of Communication Apprehension (PRCA; McCroskey, 1982)—The PRCA is a 24-item measure that uses a Likert-type scale ranging from 1 to 5, and measures fear of a variety of communication situations. It has been found to predict anxiety, avoidance, and withdrawal in public speaking situations (Beatty, 1987; Beatty, Balfantz, & Kuwabara, 1989). Internal consistency was excellent in this sample ($\alpha = .90$).

2.3.6. The Brief State Anxiety Measure (BSAM; Berg, Shapiro, Chambless, & Ahrens, 1998)—The BSAM contains 6 of the original 20 items (i.e., relaxed, steady, strained, comfortable, worried, and tense) of the State-Trait Anxiety Inventory (STAI; Spielberger, 1983). Berg et al. (1998) reported that Berg developed this measure in unpublished pilot work, in which it showed a high correlation with the full STAI ($r = .93$). Internal consistency was good in this sample ($\alpha = .75$).

2.4. APS-R sample measures

2.4.1. The Almost Perfect Scale-Revised (APS-R; Slaney, Rice, Mobley, Trippi, & Ashby, 2001)—The APS-R contains three subscales, which are listed in Table 1. The APS-R uses a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The APS-R has good convergent validity and reliability (Rice & Ashby, 2007). The APS-R literature has been reviewed in more detail in section 1. In this sample, internal consistency was excellent for Discrepancy ($\alpha = .95$) and very good for High Standards ($\alpha = .84$).

2.4.2. Self-Consciousness Scale Revised (SCS-R; Scheier & Carver, 1985)—The SCS-R was constructed based on the original self-consciousness scale (Fenigstein, Scheier, &

Buss, 1975), which measures private self-consciousness, public self-consciousness, and social anxiety. Only the social anxiety subscale was used in this study. The revised scale, which contains more easily understood items, has subscales that correlate strongly with the original scale, shows similar results when subjected to exploratory factor analysis, and demonstrates good test-retest reliability. Internal consistency for the social anxiety subscale of the SCS-R was good in this sample ($\alpha = .80$).

2.5. Procedure: FMPS Sample

Participants signed up for a study titled “Overcoming Speech Anxiety.” Participants gave informed consent, completed a packet of questionnaires, and were randomly assigned to speak about one of three topics they had chosen. After 2 minutes of mental preparation time, participants spoke for 3 minutes to a video camera and the experimenter. Participants rated their self-efficacy for the speech before giving it and their self-perception of performance for the speech after giving it. These participants also rated their anxiety at the end of the speech. The remainder of the experiment focused on a comparison of interventions for speech anxiety, but data used here are collapsed across conditions because procedures did not differ between conditions until after the speaking task. For a full description of the entire procedure, please see Rodebaugh (2004). The current data were collected during the first 45 minutes of the study.

2.6. Procedure: APS-R Sample

After giving informed consent, participants filled out a questionnaire packet including the APS-R, the other measures listed above, and additional measures not related to this study; participants reported completing the packet within about an hour ($M = 56.04$, $SD = 24.49$).

2.7. Data Analytic Strategy

To take advantage of multivariate measurement of social anxiety in both datasets, we used the structural equation modeling program AMOS v6 to test the prediction of a social anxiety factor by the relevant perfectionism subscales. We used AMOS’s missing data estimation procedure to account for minor missing data, which was less than 5% in both samples, with the exception of the state anxiety measures, for which 8 participants were missing due to refusal to give the speech. Substantive results were identical whether these participants were included or not.

3. Results

3.1. FMPS Sample

3.1.1. Descriptive statistics—Based on total SIAS scores, these participants had above average social interaction anxiety ($M = 34.28$, $SD = 14.16$), although less than the average score of 50.7 from Brown et al.’s (1997) social anxiety disorder sample. Thus, this sample can be considered generally socially anxious and likely includes a larger proportion of people with social anxiety disorder than the general population. Their scores on MEC ($M = 61.73$, $SD = 16.83$) were higher than two out of three social anxiety disorder samples and all 10 non-clinical samples reviewed by Shafran and Mansell (2001). In addition, this sample scored higher on the original Personal Standards scale ($M = 25.59$, $SD = 5.42$) than did all three social anxiety disorder samples from the same review (Shafran & Mansell). Thus, this sample shows signs of elevated perfectionism. Table 1 contains the intercorrelations for the relevant subscales and scales in this sample.

3.1.2. Model specifications—Two latent social anxiety variables were estimated. First, trait social anxiety was measured as a latent variable defined by a series of self-report instruments: the SIAS, the SPS, and the PRCA. In addition, social anxiety was measured as a latent variable defined by participant reactions to a public speaking task (i.e., state anxiety

measured by the BSAM, self-efficacy, and self-rating of performance, including nervous appearance). These latent variables were estimated because previous work with this sample has demonstrated that a similar factor structure fits well for this general set of measures (Rodebaugh et al., 2004).¹

In the models, the social anxiety latent variable was regressed upon the appropriate FMPS scores. We examined two sets of FMPS scores: the Concern over Mistakes and Doubts about Actions subscales were tested because they represented the original measure subscales of maladaptive perfectionism with the most evidence of relating to social anxiety; the original Personal Standards subscale was also included in these analyses. The MEC and PPS subscales were tested in an additional model to evaluate the subscales supported by more recent research. The FMPS scores in each model were all permitted to correlate with each other. In all cases, the model had good to excellent fit (e.g., a comparative fit index [Bentler, 1990] of .97 or higher). Refer to Figure 1 for a depiction of the type of structural equation model used for these analyses.

3.1.3. Original measure subscales model results—Concern over Mistakes, Doubts about Actions, and Personal Standards were highly correlated (see Table 1). All subscales contributed significantly to the prediction of the trait social anxiety factor. Concern over Mistakes predicted social anxiety such that higher scores predicted higher social anxiety ($\beta = 0.50, z = 3.84, p < 0.001$), as did Doubts about Actions ($\beta = 0.22, z = 2.01, p = 0.045$). Personal Standards also predicted, but in the direction of higher scores predicting *lower* social anxiety ($\beta = -0.21, z = -2.06, p = 0.039$). Similarly, in the state anxiety model, the Personal Standards subscale also predicted in the direction of higher standards predicting *lower* state anxiety ($\beta = -0.35, z = -3.10, p = 0.002$). Concern over Mistakes and Doubts about Actions, however, failed to contribute significantly to the state social anxiety factor ($\beta = 0.21, z = 1.51, p = 0.131$ and $\beta = 0.14, z = 1.12, p = 0.261$, respectively). When combined, these subscales predicted 33% of the variance in trait social anxiety and 10% of the variance in state social anxiety.

3.1.4. Recently derived subscales model results—MEC was moderately correlated with PPS (See Table 1). MEC was a significant predictor of trait social anxiety ($\beta = 0.52, z = 4.78, p < 0.001$), but was a weaker predictor of state social anxiety ($\beta = 0.27, z = 2.47, p = 0.014$). PPS was not a significant predictor of trait social anxiety ($\beta = -0.10, z = -1.07, p = 0.285$), but was a significant predictor of lower state social anxiety ($\beta = -0.34, z = -3.10, p = 0.002$). When combined, these two subscales predicted 23% of the variance in the trait social anxiety factor and 10% of the variance in the state social anxiety factor.

3.2. APS-R Sample

3.2.1. Descriptive statistics—Based on total SIAS scores, these participants reported slightly elevated social interaction anxiety compared to a community sample, but much less than the average score of 50.7 from Brown et al.'s (1997) social anxiety disorder sample ($M = 26.71, SD = 13.99$). Their scores on Discrepancy ($M = 43.37, SD = 15.84$) were slightly higher than those of another unselected undergraduate sample, whereas their scores on High Standards ($M = 40.94, SD = 5.58$) were slightly lower than that same unselected sample (Rice & Ashby, 2007). Table 2 contains the intercorrelations for the relevant subscales and scales in this sample.

3.2.2. Model specifications—We tested the relationship between the APS-R and a latent variable of social anxiety estimated by two measures: the straightforward total of the SIAS and

¹In the previous study, the BSAM was allowed to load on both factors. In this case, we elected to specify state and trait factors separately (to more clearly make the conceptual distinction between state and trait), and therefore did not allow the cross-loading.

the social anxiety subscale of the SCS-R. The APS-R subscales of High Standards and Discrepancy were included in the model. The latent variable of social anxiety was regressed upon these two subscales, all of which were permitted to correlate.

3.2.3. Model results—Discrepancy was positively related to a latent factor defined by two social anxiety measures ($\beta = 0.42$, $z = 6.07$, $p < 0.001$), whereas High Standards was negatively related to the same factor ($\beta = -0.24$, $z = -4.29$, $p < 0.001$). The relatively low correlation between Discrepancy and High Standards (see Table 1) supports the notion that they are measuring unique constructs. When combined, these two subscales predicted 20% of the variance in the social anxiety factor.²

4. Discussion

In order to investigate the role of high standards in social anxiety, we tested the relationships between two APS-R subscales, four FMPS subscales, and social anxiety. The FMPS's original Personal Standards factor predicted trait and state social anxiety such that higher standards related to *lower* social anxiety; similarly, the more recently formulated PPS factor predicted significantly lower state social anxiety. In addition, the APS-R's subscales significantly predicted a latent social anxiety factor, with lower High Standards scores and higher Discrepancy scores predicting higher social anxiety. The FMPS's CM and DA subscales significantly predicted trait social anxiety. Given that CM and DA have previously been found to relate to trait social anxiety (e.g., Juster et al., 1996), it is unclear why these subscales did not predict state social anxiety. Perhaps these participants, who were interested in overcoming speech anxiety, had a restricted range of scores on measures of speech anxiety, limiting our power to detect a significant relationship. In contrast, MEC, which consists of perfectionism-related distress and critical self-evaluation subscales from the FMPS, was a strong predictor of trait and state social anxiety.

Our analyses suggest that high personal standards are not related to social anxiety, except in as much as high personal standards relate to *lower* social anxiety. This finding is contrary to the hypotheses presented by Juster et al. (1996) and Clark and Wells (1995), and supports the hypothesis of Alden et al. (2002). Further, our findings suggest that some aspects of perfectionism fail to relate specifically to social anxiety. For example, Rice and Ashby (2007) contend that maladaptive perfectionism entails higher scores on both the Discrepancy and High Standards subscales. Similarly, Stoeber and Otto (2006) propose that high levels of perfectionistic concerns and perfectionistic strivings produce an unhealthy form of perfectionism. Our findings suggest that higher social anxiety is not specifically related to elevations in both aspects of perfectionism. Whereas people with higher social anxiety are more likely to endorse items regarding distress about failing to meet goals, which is characteristic of Rice and Ashby's definition, they tend to report, if anything, lower standards for performance, which runs counter to most definitions of perfectionism. This finding is consistent with other findings, as recounted in section 1; for example, DiBartolo et al. (2008) found that having high standards alone was not significantly related to measures of psychological symptoms such as anxiety and depression. Our findings cannot definitively resolve the debate regarding Shafran et al.'s (2002, 2003) unidimensional, intrapersonal definition of perfectionism, which focuses on high standards in combination with stringent

²Some statements about perfectionism in the literature could be taken to suggest that high standards and critical self-evaluation might have an interactive effect. For example, Stoeber and Otto's (2006) emphasis on the presence of both high standards and critical self-evaluation suggests that the interaction might be more important than either factor alone. To test this possibility, we used linear regression to predict a composite formed from the standardized form of the scales used to identify the factor in each SEM model. In each regression, the predictors consisted of the relevant critical self-evaluation scale(s), the high standards scale, and the interaction(s) between critical self-evaluation and high standards. None of these interactions was statistically significant (all $ps > .07$). The effect closest to significance was weak (part $r = -.08$). We therefore saw no significant evidence for an interactive effect.

self-evaluation. At the very least, however, our results suggest that the unidimensional perfectionism construct defined by Shafran and colleagues is not relevant to social anxiety. Whether their definition of perfectionism is useful for other domains is a separate question that must be answered through additional research. Overall, our results suggest that the absence of high standards, combined with perceived difficulty achieving standards, seems to contribute to psychological dysfunction in the form of social anxiety.

4.1. Limitations

We did not have data on Hewitt and Flett's (1991) Multidimensional Perfectionism Scale, a widely researched and psychometrically sound measure. However, this scale does not contain a subscale that clearly relates to high standards without relating to critical self-evaluation, limiting its applicability to our research questions (Flett & Hewitt, 2007). Our data consisted of self-report questionnaires and the samples were non-clinical. The negative relationship we found between social anxiety and high standards may differ for individuals with high levels of social anxiety (e.g., social anxiety disorder). Notably, however, the FMPS sample was similar in many respects to samples of participants with social anxiety disorder, both in terms of their level of social anxiety and their scores on the FMPS itself. Although speech anxiety is a common form of social anxiety, there are many manifestations of social anxiety that our findings may not generalize to. However, it should be noted that one reason for investigating social anxiety in a performance situation was because it seemed more likely that high personal standards should generate social anxiety in a situation in which participants expected to be judged by an audience. In addition, our trait measures covered more aspects of social anxiety (e.g., social interaction anxiety).

4.2. Future Directions

Alden and colleagues (2002) argue that socially anxious individuals are distressed, in part, because they believe they will never be able to reach the standards others hold them to. Traditional measures of perfectionism have included high standards as a primary element. However, although social anxiety sometimes co-occurs with perfectionism, social anxiety seems not to typically involve high personal standards. Instead, other dimensions of perfectionism relate to higher social anxiety, whereas reporting that one possesses high standards relates to lower social anxiety.

At least two basic hypotheses could explain this apparent disjunction between the standard definition of perfectionism and social anxiety. The first hypothesis is that Alden et al. (2002) are correct: Social anxiety is related to lower personal standards rather than higher ones. The second hypothesis is that the impression of some clinicians that social anxiety is related to high personal standards is basically correct, but that individuals have poor insight into their own high standards. That is, people with higher social anxiety may possess high personal standards yet believe their standards are actually relatively low. If these high standards are difficult to achieve, the people with higher social anxiety may face considerable distress because they have difficulty reaching standards they perceive to be below average, but which are actually above average. Full evaluation of the second hypothesis would require going beyond mere self-report of participants with higher social anxiety; for example, the reports of informants might be helpful in assessing people's standards across the range of social anxiety. Until these alternate hypotheses can be tested, however, our findings suggest that, contrary to previous conceptualizations, high personal standards may not contribute to higher levels of social anxiety.

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Figure 1.

Structural equation model for FMPS sample analysis with recently derived subscales. Error terms are not shown here for the sake of simplicity. The APS-R sample analysis has a similar model, but Maladaptive Evaluative Concerns and Pure Personal Standards are replaced with High Standards and Discrepancy. In addition, the APS-R sample analysis replaces the Social Phobia Scale and the Personal Report of Communication Apprehension with the social anxiety subscale of the Self-Consciousness Scale-Revised. Only the straightforward total of the SIAS was used in these analyses.

Table 1
Sources of Relevant Perfectionism Subscales and Factors

Scale	Frost et al.'s Multidimensional Perfectionism Scale (FMPS)				Almost Perfect Scale-Revised (APS-R)		
Subscales	Concern over Mistakes (CM)	Doubts about Actions (DA)	Parental Criticism (PC)	Parental Expectations (PE)	Personal Standards (PS)	Discrepancy (D)	High Standards (HS)
Factors	Maladaptive Evaluative Concerns (MEC)				Pure Personal Standards (PPS)		

Note. Factors consist of the subscale(s) listed directly above them. PPS consists of only 5 of the 7 PS items. The number of items in each are as follows: FMPS = 35, CM = 9, DA = 4, PC = 4, PE = 5, PS = 7, MEC = 29, PPS = 5, APS-R = 23, D = 12, HS = 7. Organization (6 items from the FMPS) and Order (4 items from the APS-R) are not listed because they were not used in analyses.

Table 2
Intercorrelations Between FMPS Subscales and Social Anxiety (Trait and State) Measures

Scale or subscale	Trait							State			
	CM	DA	PS	MEC	PPS	PRCA	SPS	SIAS	SPQ	BSAM	Self-efficacy
CM	--	.68**	.59**	.91**	.54**	.23*	.48**	.48**	.08	.17	-.13
DA		--	.41**	.74**	.34**	.18*	.51**	.41**	.13	.29**	-.05
PS			--	.57**	.97**	.03	.23**	.15	-.17	.01	.06
MEC				--	.50**	.16	.47**	.43**	.09	.22*	-.13
PPS					--	.01	.21*	.14	-.20*	-.03	.10
PRCA						--	.46**	.60**	.47**	.43**	-.35**
SPS							--	.72**	.38**	.49**	-.15
SIAS								--	.39**	.47**	-.22*
SPQ									--	.30**	-.48**
BSAM										--	-.20*
Self-efficacy											--

Note. For all cells, *ns* are between 116 and 128. CM = Concern over Mistakes, DA = Doubts about Actions, PS = Personal Standards, MEC = Maladaptive Evaluative Concerns, PPS = Pure Personal Standards, PRCA = Personal Report of Communication Apprehension, SPS = Social Phobia Scale, SIAS = Social Interaction Anxiety Scale (straightforward total). SPQ = Speech Performance Questionnaire, BSAM = Brief State Anxiety Measure.

* $p < .05$ (two-tailed),

** $p < .01$ (two-tailed).

Table 3
Intercorrelations Between APS-R Subscales and Social Anxiety Measures

Scale or subscale	High Standards	Discrepancy	SIAS	SA-SCS
High Standards	--	.13 ^{**}	-.18 ^{**}	-.13 [*]
Discrepancy		--	.38 ^{**}	.26 ^{**}
SIAS			--	.67 ^{**}
SA-SCS				--

Note. For all cells, *ns* are between 380 and 382. SIAS = Social Interaction Anxiety Scale (straightforward total), SA-SCS = social anxiety subscale of Self-Consciousness Scale.

*
p < .05 (two-tailed),

**
p < .01 (two-tailed).