FOCUS OF ATTENTION AND CAUSAL ATTRIBUTIONS IN SOCIAL ANXIETY

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ABSTRACT

The association between self-focused attention and social anxiety is well documented, but the mediators of this relation are unknown. This experiment manipulated attentional focus from the self to a conversation partner in order to observe causal attributions of performance in an experimental social situation. Change in attentional focus was expected to evoke shifts in attributions, mirroring those documented in the actor-observer effect. Forty-two college students participated in self- and other-focused mock job interviews, and then rated the degree to which their performance had been due to themselves or to the situation. Participants attributed their behavior primarily to situational causes across all conditions. However, when self-focused, participants demonstrated an attenuation of the self-serving bias. Given that socially phobic persons typically show a reversed self-serving bias, this finding may have implications for understanding cognitive processing in social phobia.

Key words: social anxiety, self-focused attention, self-serving bias, causal attributions, actor-observer effect

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Self-focus refers to the process of “selectively attending to information that originates from within and concerns the self” (Carver & Scheier, 1981, p. 34). Although self-focused attention can serve a functional or self-enhancing role (for example, self-congratulatory thoughts), this inward-directed focus has more often been associated with impaired functioning among clinical populations (i.e., depression, alcoholism, and anxiety; see Ingram, 1990 for a review). Further, there is a robust association between self-focused attention and social anxiety, both on self-report (Hope, Gansler, & Heimberg, 1989; Schlenker & Leary, 1982; Woody, 1996) and information processing (Mansell, Clark, & Ehlers, 2003) measures. For example, social anxiety is positively correlated with frequency of self-relevant thoughts (Hope, Heimberg, Zollo, Nyman, & O’Brien, 1987), and these thoughts appear to occur more frequently when the individual is highly motivated to perform well, such as under conditions of social evaluation (Hope et al., 1989). Hope et al. suggest that anxious arousal induces self-focused attention, which in turn may impair task performance and increase emotional reactivity. This hypothesis is supported by findings that self-focused attention intensifies awareness of one’s own affective state (Scheier & Carver, 1977; Fenigstein, 1979), may predict fears of blushing (Bögels & Lamers, 2002), and is exacerbated by arousal (Wegner & Guiliano, 1980).

Increasing evidence supports a bi-directional model of self-focused attention and social anxiety (see Spurr & Stopa, 2002; Woody & Rodriguez, 2000). Negative mood leads one to focus on the self (Salovey, 1992; Wegner & Guiliano, 1980), but self-focus can also directly increase negative affect (Woody, 1996). Specifically, manipulating focus of attention affects ratings of social anxiety, suggesting that self-focused attention plays a causal role in exacerbating social fears. Interestingly, this relation is evident among both socially phobic and normal groups. Using a contrived speech task to alter subjects’ attentional locus, Woody and Rodriguez (2000) found that phobic and normal control groups responded equally to the self-focus manipulation, with each group showing anxiety-provoking effects of self-focused attention.

Many questions remain about the moderators and mediators of the association between self-focus and social anxiety. Woody and Rodriguez (2000) proposed that fear of negative evaluation was the critical moderator, on the supposition that self-focus would only increase social anxiety for those who feared the possibility of scrutiny. However, they found that neither a fear of negative evaluation nor the interaction between fear of negative evaluation and self-focused attention were significant predictors of self-reported anxiety during the task.

In a meta-analysis of the relation between self-focused attention and negative affect, Mor and Winquist (2002) found an overall moderate relation (effect size of $d = 0.51$ for correlational designs and $d = 0.41$ for experimental designs) and suggested the relation was strongest in clinical and female-dominated samples. The authors suggest this may be due to women’s greater tendency to engage in particularly negative self-focus, such as during rumination (Nolen-Hoeksema, 1987). This analysis highlights moderators of the bi-directional influence of self-focus and negative affect broadly, but does not speak to the role of attentional focus in social anxiety specifically. Mor and Winquist (2002) suggest it may be important to consider the role of public and private self-focus separately. Typically, this distinction is applied to the trait form of self-focus, known as self-consciousness (Fenigstein, Scheier, & Buss, 1975), but Mor and Winquist (2002) suggest it can also distinguish among transitory states of self-focus. Public self-consciousness in this case refers to aspects of behavior that are concerned with others' impressions of oneself, while private self-
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consciousness reflects attention to private, autonomous goals (Carver & Scheier, 1987). Interestingly, Mor and Winquist concluded from their analysis that private self-focus was more strongly associated with depression and generalized anxiety, whereas public self-focus was more strongly associated with social anxiety\(^1\), highlighting an important moderator of the relationship.

Several possible mediators of the connection between self-focus and social anxiety have also been examined. For example, researchers have postulated that excessive self-focused attention may prevent the individual from devoting sufficient attentional resources to social partners, thus limiting social effectiveness. The hypothesis for this mediating mechanism was based on a limited capacity model of attention (e.g., Wine, 1980). However, Woody and her colleagues (Woody, 1996; Woody, Chambless & Glass, 1997) found that self-focus did not necessarily result in diminished attention to external stimuli. This led us to consider an alternative mediator of the relationship between self-focused attention and social anxiety that would not rely on the assumption of reduced other-focused attention, but would be specific to cognitive processes active when an individual was self-focused; namely, attributions made during social interactions. The present study was designed to explore this mediator based on three converging lines of reasoning that suggest self-focused attention may result in increased internal attributions during a socially evaluative interaction.

Duval and Wicklund (1973) proposed that self-focused attention engages an aversive drive state whereby individuals are motivated to reduce the discrepancy between their present performance and a relevant standard of comparison. Carver and Scheier (1981) expanded on the Duval and Wicklund theory, suggesting that a natural consequence of this drive would be a discrepancy-reducing feedback loop. In essence, the theory states that individuals who feel they are not performing up to their own standard of comparison feel motivated to minimize the perceived performance deficit. To the extent that an individual feels incapable of reducing this discrepancy, Carver and Scheier predict an increase in negative affect, such as anxiety. Building from this model, we note that socially anxious persons, who perseverate on the prospect of social embarrassment, constantly survey their own thoughts and behaviors related to social situations. As a result, they likely become increasingly aware of their flaws (i.e., perceived performance deficit), and attribute these flaws to internal causes. Simply put, when the self is salient, it is highly accessible as a causal explanation for one’s behavior (Carver & Scheier, 1981). Thus, we predict that self-focused attention will be associated with internal attributions.

A second line of related social psychology research is the actor-observer effect (Jones & Nisbett, 1972). According to this effect, actors generally attribute their own behavior to situational determinants, while observers tend to attribute the observed individual’s behavior to dispositional causes. Typically, the observed individual is another person. However, in the case of self-focused attention, the actor is observing him- or herself. It is not clear whether the expected attributions under conditions of self-focus would reflect those of the actor, who would attribute mainly to the situation, or those of the observer, who would attribute mainly to the actor (in this case, the self).

Shifting attention from the social task or one’s social partners to the self may accordingly shift the participant from actor to observer, which the actor-observer effect suggests would

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\(^1\) Fejfar and Hoyle (2000) did find a small effect size for the relationship between private self-awareness and negative affect, but they did not evaluate studies on public self-focus.
shift performance attributions. Specifically, we expect that individuals who are other-focused will make attributions about themselves like “actors,” resulting in more external, situational causal explanations. On the other hand, self-focused individuals are expected to make attributions about themselves like “observers,” and therefore make relatively more internal, dispositional causal explanations. This position is consistent with Clark and Wells’ (1995) cognitive model of social phobia, which suggests that self-focused attention maintains social anxiety in part because it leads phobic individuals to see themselves from the perspective of an observer, viewing their appearance and performance in a distorted, negative way based on anxiety cues.

Preliminary support for the idea that socially anxious, self-focused individuals are observing themselves comes from a study by Wells, Clark, and Ahmad (1998), who asked research participants to recall anxiety-provoking situations. Wells et al. found that socially phobic participants remembered images of anxiety-provoking social events from the vantage point of an outsider, whereas normal control subjects described social events as though they saw them from their own eyes. Thus, individuals with social phobia recalled anxiety-provoking social situations as “observers,” while comparison subjects recalled parallel situations as “actors.” However, for memories about events other than those related to social anxiety, participants in both groups described the images from the same vantage point (as “actors”). Hackmann, Surawy, and Clark (1998) found a similar observer perspective about anxiety-provoking social situations among their participants with social phobia.

Wells and Papageorgiou (1999) replicated the finding that socially phobic participants recall social situations from an observer perspective, but interestingly, this was also true for agoraphobic participants, suggesting the phenomenon was not unique to social anxiety. Further supporting the observer-anxiety relationship, Coles, Turk, Heimberg, and Fresco (2001) found that individuals with social phobia took an observer perspective more frequently than non-anxious controls did when asked to recall high anxiety social situations. However, their study points to possible constraints of this effect because only half of their socially phobic sample took an external perspective for the high-anxiety memory, and neither the phobic nor control group took an outsider’s perspective for medium- and low-anxiety memories. Coles et al. suggest that the observer perspective may be most likely for social provocations of a performance or public speaking nature.

A final phenomenon from social psychology research, the self-serving bias (see Miller & Ross, 1975), is also relevant to the interplay between attributions, self-focused attention, and social anxiety. Typically, social psychologists have found that normal individuals attribute successful outcomes to internal causes, such as skill, and failures to external causes, such as task difficulty or bad luck. However, persons with social phobia reverse this pattern in social situations, particularly when evaluative concerns are present (Arkin, Appelman, & Burger, 1980; Hope et al., 1989; Zelen, 1987); social phobics tend to blame themselves for perceived social failures and attribute their successes to external causes. Due to fear of negative evaluation from others in social situations, we propose that socially anxious individuals are hypervigilant for, and magnify the importance of, negative aspects of their performance. The combination of chiefly negative self-appraisal and the increased salience of the self (resulting from the increased self-focus in Carver and Scheier’s model) likely lead individuals with social phobia to perceive abundant social failures and then to blame themselves for these perceived failures.
These three lines of reasoning converge to suggest shifting attributions may mediate the relation between self-focus and social anxiety. Indirect support for this hypothesis can be drawn from research linking attributions and attentional focus. Taylor and Fiske (1975) found that instructing a subject to focus on a particular actor (within a group) led the subject to attribute greater outcome responsibility to that actor than to others in the situation. Presumably, a similar mechanism would apply to the self, such that self-focused individuals would make more self-attributions. In addition to shifting the direction of attribution from the situation to the self, self-focused attention may shift the balance of attributions for failure and success, resulting in increased personal attributions for failure and diminished personal attributions for success in social encounters. These attributional patterns are expected to produce negative affect and undermine one’s sense of confidence about social performance. The present study was designed to examine the relation between causal attributions and self-focused attention in social situations.

To examine shifts in attributions across conditions of self- and other-focused attention, participants engaged in a socially evaluative task involving a series of mock job interviews that manipulated attentional focus. Following each of two interviews, participants completed measures of internal and external causal attributions. Because previous research showed self-focused attention increases social anxiety even among unselected undergraduates (Woody & Rodriguez, 2000), this population was used in the present study. Participants were expected to make more dispositional attributions about their own behavior when in the self-focused condition and to attribute their own behavior to situational causes when in the other-focused condition. A video condition was also included in which participants viewed their own performance from the other-focused condition. Because the video shifted the participant from an other-focused “actor” to a self-focused “observer,” we expected more dispositional attributions in this condition. Finally, participants were expected to show an attenuated or reversed self-serving bias, making relatively more internal attributions for their perceived negative performance outcomes when in the self- versus other-focused condition.

**METHOD**

**Participants**

In response to signs posted at the psychology department at Yale University, 46 undergraduate students agreed to complete the study in exchange for either $8 or partial course credit. Four participants were excluded either due to mechanical difficulties during the taping of the interviews or because they knew one of the confederates. The final sample of 42 had equal numbers of men and women, and the mean age was 20 years (SD = 1.30).

**Measures**

As a manipulation check, participants completed the Focus of Attention Questionnaire (FAQ; Chambless & Glass, 1984) immediately following each of the interview conditions. This brief scale consists of two 5-item subscales: Self-Focus, which includes monitoring of
one’s own internal states and behavior, and External-Focus, which evaluates attention directed toward the environment and one’s social partner. The scale has demonstrated acceptable reliability and validity. See Woody (1996) and Woody, Chambless, and Glass (1997) for psychometric information and item wording.

To evaluate causal attributions following each of the interview conditions, participants rated their own performance based on 10 performance descriptors, balanced to include items with positive and negative valence. Using 7-point Likert scales, participants rated how much each descriptor (e.g., “friendly”) characterized their social performance. For each of the 10 descriptor ratings, participants then used 7-point Likert scales to rate the extent to which each aspect of their performance had been due to their personality and to what extent their performance had been due to the situation. Thus, the attributions measure consisted of 10 three-part items (a descriptor rating associated with an internal and external attribution rating). The positive and negative descriptors were selected to reflect the positive goals and negative concerns regarding social performance commonly expressed by individuals with social anxiety. Positive descriptors were “friendly”, “poised”, “socially skilled”, “successful”, and “interesting.” Negative descriptors were “awkward”, “distant”, “nervous”, “boring”, and “shallow.”

Following each of the interview role-plays, participants completed the negative subscale of the Social-Interaction Self-Statement Test (SISST-N; Glass, Merluzzi, Biever, & Larsen, 1982). This 15-item subscale is a widely used endorsement-style cognitive assessment of negative self-statements about an immediately preceding social interaction. In addition, participants rated their anxiety level following each of the interviews on a 0-100 scale, with 100 representing the highest possible anxiety. Also using a 0-100 scale, participants rated the impression they believed they had made on the confederate, with 100 representing the best possible impression (referred to hereafter as performance impression).

Finally, participants completed two questionnaire measures commonly used to evaluate social anxiety in undergraduate samples. These measures were completed in counterbalanced order with the experimental task. The Social Avoidance and Distress scale (SAD) and the Fear of Negative Evaluation (FNE) scale are companion measures of social anxiety developed by Watson and Friend (1969) for use in undergraduate samples. The FNE is a 30-item, true-false scale that assesses how one feels about being evaluated negatively by others, and the SAD is a 28-item true-false scale that evaluates social anxiety and avoidance.

**Procedure**

When participants arrived at the lab, an experimenter introduced them to a study on “perception of the self and attention during social interactions, specifically during job interviews.” After giving informed consent, participants engaged in two role-plays of job interviews, one in which they played the interviewer, and a second in which a confederate interviewed them. Following each interview, participants made ratings about their anxiety and performance impression during the task and completed the FAQ, SISST-N, and attribution ratings. Participants had been told earlier that the interviews would be videotaped, although they were told the taping would allow their performance “to be rated later by independent experts.” Hence, participants were unaware of the final video condition where they would be asked to observe themselves and make causal attributions about their performance as the
interviewer in the other-focused condition. The order of the two mock job interviews was counterbalanced across participants.

Several research assistants acted as confederates, but the confederate was always a professionally dressed young woman who was unknown to the participant. An experimenter simply introduced the confederate to the participant at the outset of each interaction, so participants were not clearly informed about whether the confederate was an assistant or another participant. The interviews lasted three minutes each and took place in the same room. In both the self-focused and other-focused interview conditions, the “interviewer” (whether it was the participant or confederate) was provided with a list of sample job interview questions (e.g., “What makes you a good candidate for this job?”) and was instructed to feel free to use the sample questions or add their own. Finally, just before the interview began, the experimenter said the following:

I ask that the interviewer please consider the candidate carefully. At the end of the study, we will be asking you to rate the job candidate’s performance, suitability as a candidate, the general impression the candidate made, what you perceived their strengths and weaknesses to be, and how effectively you felt the job candidate handled the interview. Thus, we ask that you please consider their performance carefully.

The purpose of these instructions was to augment the attentional focus manipulation and to intensify the salience of the social evaluation component of the task. Specifically, when participants were in the self-focused condition (i.e. being interviewed), these instructions highlighted that the interviewer would be scrutinizing the “candidate.” When participants were in the other-focused “interviewer” condition, the instructions encouraged participants to focus on the “candidate,” rather than upon him- or herself. The attentional manipulation included not only the interviewer/candidate role reversal, but was also enhanced by having the self-focused “candidate” directly face a large mirror (approximately 3 feet away). Furthermore, confederates were trained in advance to ensure that the conversational focus was on the “candidate,” regardless of whether the confederate or participant filled the role. Participants were allowed to be interviewed for a job of their choice; however, confederates always asked to be interviewed for the position of manager at a prestigious bank (when they were in the self-focused condition) to maximize the consistency of their performance throughout the study.

Participants were videotaped during both job interviews using a camera that was unobtrusively located on a shelf with a variety of other electrical equipment. The camera was camouflaged to discreetly tape participants in the other-focused condition without causing an undesirable increase in their self-focused attention. So, although participants had been informed during written consent that the interviews would be videotaped, they were unaware of the actual operation of the camera. This video recording was used for the third and final condition in the study. After participants had completed the self- and other-focused interview role-plays and the subsequent questionnaires, they were taken to another room to watch a videotape of their performance as an interviewer. In this video condition, participants watched (focused upon) themselves so that we could compare attributions based on literal self-observation in the video condition with those made following the actual other-focused interview. Therefore, based on the performance they observed on video, participants completed the attribution ratings and their self-reported anxious appearance and performance
impression ratings a final time. The FAQ and SISST-N were not completed in this condition, since they only apply to actual interactions. Lastly, participants were fully debriefed and thanked for taking part in the study.

**RESULTS**

**Manipulation Check**

A manipulation check was conducted to ascertain that the experimental task effectively shifted focus of attention in the desired direction across the job interview conditions. A t-test of the FAQ\textsubscript{self} self-score across conditions indicated that participants scored higher on FAQ\textsubscript{self} in the self- versus other-focus interview condition ($t(41) = 7.09$, $p < .0001$, Cohen’s $d = .31$). The comparable analysis for external focus indicated participants had significantly higher FAQ\textsubscript{external} scores in the other- versus self-focus interview condition ($t(41) = 11.84$, $p < .0001$, Cohen’s $d = .29$), thus demonstrating that the job interview paradigm successfully manipulated focus of attention in the predicted directions. Shifts in attentional focus across interview conditions are depicted graphically in Figure 1.

**Social Anxiety, Self-Focused Attention and Performance**

As expected, the students within our sample scored within the normal range on the social anxiety measures (FNE mean = 13.47, SD = 8.03; SAD mean = 6.51, SD = 6.57), consistent with a typical distribution for undergraduate samples. Scores on the SISST-N in both the self- and other-focus conditions were also within the normal range (self-focus mean = 28.26, SD = 10.41; other-focus mean = 23.40, SD = 8.95). As expected, a repeated measures ANOVA revealed self-reported anxiety during the task was higher in the self-focused condition ($F(2, 40) = 4.68$, $p < .02$, $f = .35$), but there was no difference between the other-focus and video conditions ($p > .05$).

Self-focused attention as measured by FAQ\textsubscript{self} in the self-focus condition was strongly correlated with state anxiety ($r = .65$, $p < .0001$) and the SISST-N ($r = .65$, $p < .0001$). Broader measures of social anxiety were also relatively strongly correlated with the FAQ\textsubscript{self} (FNE: $r = .51$, $p = .0005$; SAD: $r = .52$, $p = .0009$). As expected, the correlation between FAQ\textsubscript{self} and self-rated performance impression during the self-focus condition was negligible ($r = -.13$, $p = .42$). Thus, consistent with earlier findings (Woody, 1996), the relationship between self-focus and social anxiety was strong, but perceived performance impression was not significantly related to degree of self-focused attention. However, there was a small but significant negative correlation between the FAQ\textsubscript{self} and performance valence in the self-focus condition ($r = -.32$, $p = .04$). Self-ratings of performance valence were measured by a difference score reflecting each participant’s total ratings of positive descriptors minus total ratings of negative descriptors on the attributions scale. Thus, when asked directly for 0-100 ratings of their own performance quality in both of their interviews, participants rated the interviews as equivalent. Their questionnaire responses differed, however, as they rated negative adjectives as more descriptive of their performance in the self-focused condition.
To characterize the general nature of participants’ causal attributions during the experiment, situational and personality attributions were contrasted within each of the three conditions (self-focus, other-focus, and video). T-tests revealed that participants consistently endorsed more external than internal explanations across conditions (self-focus: $t(41) = 4.24$, $p < .0001$, $d = .30$; other-focus: $t(41) = 6.30$, $p < .0001$, $d = .31$; video: $t(41) = 6.16$, $p < .0001$, $d = .33$). As suggested by the relatively high values for Cohen’s $d$, ratings for situational attributions were at least a standard deviation higher than personality attributions across all three conditions (see Table 1 for means and standard deviations).
Table 1. Causal attributions for situation versus personality within conditions

<table>
<thead>
<tr>
<th>Focus of Attention Condition</th>
<th>Self-Focus</th>
<th>Other-Focus</th>
<th>Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribution Ratings</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Performance due to situation</td>
<td>5.07</td>
<td>1.22</td>
<td>5.15</td>
</tr>
<tr>
<td>Performance due to personality</td>
<td>3.75</td>
<td>1.34</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Note: N=42. Range is 1-7.

Planned contrasts were used to examine the hypothesis that attributions would shift across conditions to mirror the actor-observer effect. Degree of internal attributions served as the dependent variable. Difference scores were first calculated for each of the 10 performance descriptors. Recall that participants rated their performance related to each descriptor (e.g., friendly, awkward) in terms of the degree of influence from the situation and from their own personality. For each descriptor, situational ratings were subtracted from personality ratings, resulting in a difference score for which high values indicated greater internal causal attributions and low scores indicated more situational attributions. The Total Performance Attribution score was represented by the mean of the (internal – external) difference scores for all 10 performance descriptors. The Negative Performance Attribution score was calculated using the mean of (internal – external) difference scores for only the 5 negative performance descriptors. Similarly, to create the Positive Performance Attribution score, we calculated the mean of the (internal – external) difference scores for just the 5 positive performance descriptors.

In line with our hypotheses about self-focus and the actor-observer effect, we expected that participants would make more internal performance attributions when in the self-versus other-focused condition, and that attributions made in the video condition would mirror those of the self-focused condition (since subjects would again be observing themselves). Planned contrasts tested whether internal attributions (using the difference scores) would be higher for the self-focus (+1) and video (+1) conditions than they were for the other-focus (-2) condition. Contrast analyses revealed non-significant (p > .05) differences, regardless of whether Total, Negative, or Positive Performance Attributions were used. Thus, causal attributions did not shift across conditions according to predictions derived from the actor-observer effect.

To examine whether attributions differed across conditions in a manner that varied from the predicted pattern, we used a repeated measures general linear regression model with the Total Performance Attributions score as the dependent variable, and attentional focus as the within-subjects factor with three levels (self, other, and video). Additionally, to look for interaction effects, the following variables were each examined separately as continuous between-subjects factors: SAD, FNE, anxiety during the task, SISST-N, and performance impression. This set of analyses was repeated for both the Negative and Positive Performance Attribution scores. Causal attributions did not significantly differ across the attentional focus conditions and there was no significant interaction with any of the between-subjects factors. This finding was consistent for the Total, Positive, and Negative attribution scores (all ps > .05).

The analyses described above make clear that the self-focus manipulation did not cause participants to alter their global patterns of attributions across conditions. However,
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attributional patterns might differ depending on whether the respondent is attempting to explain a social success (positive descriptor) or a social failure (negative descriptor). Due to the effects of self-focus on social anxiety, we expected that participants might make more internal attributions about social failure when self-focused than when other-focused. This finding would suggest that self-focus might be implicated in the maladaptive reversal of the self-serving bias evidenced by individuals with social phobia.

As a preliminary step, we conducted a repeated measures ANOVA with focus condition (self and other) and valence (positive and negative) as factors. Based on our earlier analyses, we expected no main effect for focus condition. However, we did anticipate a main effect for valence representing a self-serving bias in which participants should make more internal attributions for positive (versus negative) descriptors. As predicted, there was no main effect for focus condition (F (1, 41) = .06, p > .05, f = .04), but there was a significant effect for valence (F (1, 41) = 10.29, p = .003, f = .45) along the lines predicted by the self-serving bias. The interaction term did not reach significance (F (1, 41) = 2.24, p > .05, f = .23). (However, the trend was in the right direction and given the small to moderate effect size, the failure to reach significance may have been due to limited power in the present study.)

We then conducted t-tests to contrast the causal attribution difference scores for the negative versus positive descriptors for the self- and other-focus conditions. As expected, subjects provided significantly more external explanations for negative (versus positive) aspects of their performance in the other-focused condition (t (41) = 3.57, p < .001, d = .51), but not in the self-focused condition (t (41) = 1.81, p > .05, d = .20) where they made no significant distinction. These results suggest that participants may demonstrate an attenuation of the self-serving bias under conditions of self-focused attention. See Figure 2.
Figure 2. Attenuation of the self-serving bias: Impact of attentional focus on degree of situational attribution for positive and negative descriptors of social performance (mean item response).

**DISCUSSION**

The present study was designed to examine shifts in causal attributions related to self-focused attention during an evaluative social situation. Past research had demonstrated that self-focused attention actively increases social anxiety, and a shift in attributions was hypothesized to mediate this effect. Participants engaged in two mock job interviews, one in which they were self-focused and one in which they were other-focused. Global attributions were expected to shift in ways that mirrored the actor-observer effect. Thus, when participants were self-focused, they were expected to make more internal attributions because they would be focusing upon (“observing”) themselves while they interacted in the social situation. In contrast, when participants were other-focused, they would only be “acting” in the situation (not observing themselves), and consequently would make more external attributions. The video condition was expected to parallel the self-focus condition since participants would then be literally observing their own social performance on screen.

Contrary to expectations, participants provided significantly more situational (versus personality) causal explanations for their social performance across all conditions, regardless
of their attentional focus. However, participants’ attributions for negative versus positive aspects of their social performance differed depending on whether they were in the self-focus or other-focus condition. When other-focused, participants tended to point to the situation to explain negative aspects of their performance and to take more personal credit for explaining positive aspects of their performance. This pattern follows the usual self-serving bias. However, when self-focused, participants did not make different attributions for positive versus negative aspects of their performance, suggesting an attenuation of the self-serving bias. In other words, when individuals are self-focused in a socially evaluative situation, they may not show a self-serving attributional bias, thus losing out on the confidence-boosting benefits of this bias. This finding provides preliminary evidence that self-focus may be a mediator in the process of reversing the self-serving bias for socially anxious persons and, furthermore, that even normal self-serving biases may be attenuated in socially evaluative situations if the individual is sufficiently self-focused.

Surprisingly, causal explanations did not shift along the lines predicted by the actor-observer effect. This was true for each of the attribution composite measures (total, positive, and negative), where external attributions dominated across experimental conditions. One reason why the expected shift in attributions did not occur may be that the actor-observer effect appears to be attenuated when the observer knows the observed person well (Green, Lightfoot, Bandy, & Buchanan, 1985). Observers are more likely to make dispositional attributions about strangers as opposed to individuals whose behavior they have observed across many different situations. Thus, it is possible that the actor-observer effect did not occur because participants were observing themselves, whom they presumably know very well. An alternative explanation follows from research indicating that the probability of recalling an event from the perspective of an observer increases over time (Frank & Gilovich, 1989; Nigro & Neisser, 1983). It seems plausible that the current study did not observe an effect in part because attributions from the observer perspective were examined too soon after the social event.

Additionally, the experimental task itself may have limited our ability to detect the predicted attributional shift. Because the task was novel, and the demands of the situation were clear and strong, participants’ tendency to attribute their behavior primarily to the environment was appropriate. In short, the distinctiveness of the task may have led participants to make more situational attributions than they would have made under more normative social circumstances, in which expectations are often more ambiguous. Future research may thus want to address the external validity of the role-play paradigm to determine whether participants interpreted the situation in the same way as a more naturalistic interaction.

The suggestion that attentional focus may moderate the reversed self-serving bias has received little attention to date. Numerous theorists have tried to explain the phenomenon (which is not surprising given its apparent maladaptive consequences), but there has been little empirical evidence upon which to evaluate the competing explanations. Arkin et al. (1980) postulated that socially anxious persons use a “cost” orientation when under conditions of high evaluative concern, such that they believe evaluators will feel less displeased with them if they take responsibility for their perceived failure. In contrast, Hope et al. (1989) suggested a self-handicapping explanation, designed to minimize damage to self-presentational concerns and to reduce others’ expectations for subsequent performances.
An intriguing study by Coles et al. (2001) found that attributions made by socially phobic participants for memories of their performance in past social situations did become more internal, stable, and global as the anxiety level of the situation increased, consistent with the reversal of the self-serving bias. Further, non-anxious control participants showed the opposite pattern, in line with the more typical self-serving bias. However, the design of their study does not permit causal inferences about the direction of the relationship between the observer perspective and attributional bias, and the authors note that low power and a restricted range on their attributions measure limited their analysis of attributional patterns in social situations. Future studies are needed to more directly address the role of self-focused attention as a mediator of the reversal process. Interestingly, self-focused attention has also been associated with depression (Greenberg, Pyszczynski, Burling & Tibbs, 1992), and depressed persons also tend to reverse the self-serving bias (e.g., see Cohen & van den Bout, 1994).

Although the results need to be replicated, this finding has implications for the treatment of individuals with social anxiety given increasing evidence that reduced self-focused attention is related to treatment gains for social phobia (Hofmann, 2000; Woody et al., 1997). The effects found in the present study were fairly small, however a number of factors argued against finding any reversal effects at all. First, the study was designed to test attributions related to the actor-observer effect, not specifically the self-serving bias. Second, using a sample of undergraduates further reduced the likelihood of finding a reversal effect in the self-serving bias. Finally, we only examined attributions that occurred during the actual interview. Anxious anticipation and self-deprecating rumination are problems that are exacerbated for socially phobic persons before and after social interactions. Quite possibly, the effects of self-focus on social anxiety (and consequent attributions) may be most devastating when individuals are either anticipating an evaluative social interaction or rehashing a past perceived failure. Measuring the effects of self-focused attention at these additional time points may thus reveal larger attenuation effects on the self-serving bias. Therefore, although our initial findings show only a small effect size, these preliminary results suggest that further investigation of self-focus as a mediator of the reversed self-serving bias is warranted.

We are still left with the question of why self-focused attention would attenuate the self-serving bias. One possibility derives from Carver and Scheier’s (1981) discrepancy-reducing feedback loop described earlier. Perhaps socially anxious individuals only get caught in the loop for negative aspects of performance because they feel least able to reduce the discrepancy between their actual and ideal performance for these negative outcomes. Positive performance descriptors may not cue the same hypervigilance for perceived negative evaluation by others (i.e. perceived failure). Therefore, only negative performance qualities would exacerbate self-focus, and make internal attributions highly accessible.

The current study has a number of limitations. First, we did not request specific details about the internal and external causal attributions to determine what aspect of the person or situation participants were using to explain their performance. Thus, we do not know whether participants’ predominantly situational attributions were referring to difficulty of the task, experimental demands, or an alternative environmental variable. Understanding the nature of participants’ external attributions may be particularly informative given research by Mulle and Knobe (1997) that identifies the different types of behaviors (e.g., observable, intentional) explained by actors versus observers. A further drawback of the attributions measure was that
it was idiosyncratic to the task in this study, so we have no psychometric data on the scale. However, it should be noted that this limitation is typical of attributions research. Finally, given that level of anxiety shifted along with attentional focus across conditions, the specific mechanism driving the observed attenuation of the self-serving bias cannot be determined. This final point is more of an alternative explanation than a limitation of the present study, but future work will need to disentangle these competing explanations.

The results from this study have raised a number of questions for future research. Clearly, the present findings need to be replicated, ideally in a study specifically designed to investigate the roles of self-focused attention and social anxiety in the self-serving bias. Such research may benefit from using a selected sample of socially anxious or shy individuals to examine the effects of self-focused attention on attributions made in social situations with a more anxious population. If the finding is robust, it will be important to investigate the mechanisms guiding this relationship. For example, does self-focus lead to the reversal as a consequence of availability as suggested by the Carver and Scheier (1981) model, or is the process more akin to a specific deficit in processing of social information under evaluative, anxiety-provoking conditions? Additionally, future studies should address the role of depression on self-focused attention, anxiety, and attributions. This association may be especially critical given that depressed individuals also demonstrate a reversal of the self-serving bias. Understanding these relations may facilitate not only more effective treatment for social phobia, but also broaden our understanding of basic emotion pathology by highlighting how normative social processes, such as the self-serving bias, can become dysregulated.

REFERENCES


