



## POSITION PAPER

## What Is the Core Fear in Social Phobia? A New Model to Facilitate Individualized Case Conceptualization and Treatment

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*What, exactly, do individuals with social phobia fear? Whereas fear of anxiety-related bodily sensations characterizes and defines panic disorder, is there a fundamental focus of anxiety that unifies individuals under the diagnostic category of social phobia? Current conceptualizations of social phobia suggest several possible candidates, including the fear of negative evaluation, embarrassment, and loss of social status. However, it is argued here that these conceptualizations are fundamentally flawed and confusing, and the lack of clarity with respect to this question has hampered our ability to conceptualize and treat patients with social phobia in a manner that is tailored to individual differences in symptom presentation. In the present article, I will propose a novel conceptualization of core fear in social phobia, demonstrate how this conceptualization can be used to classify individuals with social phobia in a manner that eliminates confusion and accounts for symptom heterogeneity, and illustrate its potential utility for both clinical practice and research.*

SOCIAL phobia (social anxiety disorder) is the most common anxiety disorder, with lifetime prevalence estimates as high as 12% (Kessler, Berglund, Demler, Jin, & Walters, 2005). Given these high prevalence rates, effective clinical interventions are essential. However, results of intent-to-treat analyses from large clinical trials indicate that relatively few patients with social phobia (for example, 25% in Otto et al., 2000; 54% in Davidson et al., 2004; 58% in Heimberg et al., 1998) receiving “gold standard” (e.g., Chambless & Ollendick, 2001) cognitive behavior therapy achieve high end-state functioning after acute treatment. The fact is that a significant proportion of individuals who complete empirically supported therapy for social phobia remain symptomatic at the end of therapy, with an even higher percentage exhibiting symptoms at follow-up. Thus, it is crucial to determine the conditions under which psychological treatments work (or do not work) for individuals with social phobia and to develop ways to maximize their efficacy.

According to Persons (2005), effective CBT practitioners adopt an approach to therapy in which empirically supported treatments are idiographically adapted to meet the needs and symptom profiles of individual patients. Implementing this approach involves using empirically

grounded methods of intervention in conjunction with theory-guided, adaptable hypotheses about the mechanisms underlying psychopathology and treatment change. An essential step in pursuing this desirable clinical goal is to construct an a priori research agenda that aims both to understand patterns of individual differences in symptom presentation that account for heterogeneity within specific DSM disorder categories, and to identify clusters of patient or symptom characteristics that might reliably moderate treatment outcomes.

A central question emerging from this area of research is why patients who share the *same* diagnosis typically show markedly different responses to the identical therapy protocol? Here, I propose that some of the variability in CBT outcomes for social phobia might be explained by inadequacies in current methods of assessment and case conceptualization, which focus heavily and, often, exclusively on feared social situations. As such, current assessment and therapy procedures for social phobia are not designed to help practitioners adequately conceptualize patients’ core social fears in a manner that accounts for functional differences in symptom profiles and facilitates individualized treatment strategies. Below, I will illustrate a logical, systematic, and empirically supported approach to case conceptualization in social phobia that would enable clinicians to implement cognitive behavioral interventions that are more uniquely tailored to the idiosyncratic nature of each patient’s symptom profile. First, I will present research evidence in support of a novel way of conceptualizing the core features of social phobia. I will then demonstrate that this conceptualization

1077-7229/08/xxx-xxx\$1.00/0

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enables us to classify patients with social phobia into informative groups that theoretically account for individual differences between patients while preserving and accentuating the essential elements that unite them under the same diagnostic category. Next, I will outline how adopting this new conceptual framework will enhance the precision of pretreatment assessment, augment treatment planning, and enable the administration of therapeutic interventions that are matched to the unique manifestation of symptoms for each individual patient. These steps, in turn, should improve treatment outcomes. Finally, I will discuss ideas for future research in the context of the proposed model.

### **Assessing the Anxiety Symptom Profile: A Model for Precise Case Conceptualization in the Anxiety Disorders**

Current theories and converging evidence suggest that the extinction of learned fear during exposure-based CBT depends integrally on ensuring that patients process new emotional information that is incompatible with their existing mental representations of fear (Foa & Kozak, 1986; Foa & McNally, 1996; Powers, Smits, Leyro, & Otto, 2007). Such processing requires designing clever exposure exercises in which patients can *fully* confront their feared stimuli and fear triggers in the absence of avoidance and safety behaviors (Kamphuis & Telch, 2000; Powers, Smits, & Telch, 2004; Rodriguez & Craske, 1993; Telch, Valentiner, Imai, Young, Powers, & Smits, 2004). Doing so enables patients to learn and consolidate new information about the (un)likelihood of the occurrence of feared consequences (for a comprehensive review of this literature, see Moscovitch, Antony, & Swinson, 2009).

Thus, maximizing the potential for positive outcomes in exposure-based CBT requires a precise understanding of the nuanced manner in which every patient's anxious feelings, thoughts, and behaviors are functionally interrelated (see Moscovitch et al., 2009). This understanding can be facilitated in the early stages of therapy by conducting a *functional analysis*, in which precise information is gathered on every patient's: (a) *feared stimulus* (defined here, as elsewhere [e.g., Barlow, 2002], as the precise focus or object of the patient's anxiety or that which the patient perceives as being "dangerous"); (b) *feared consequences* (defined as that outcome or set of outcomes that the patient is afraid will transpire if the feared stimuli are confronted); (c) *fear triggers and contexts* (defined as the cues, contexts, and situations that are associated for the patient with his or her feared stimuli and, therefore, likely to trigger feelings of anxiety and use of avoidance behaviors); and (d) *fear-related avoidance, escape, and safety behaviors* (defined as the emotional action tendencies in which a patient engages to try to prevent the occurrence of feared consequences).

The constellation of symptoms reported by each patient within these four functionally interrelated domains—henceforth termed a patient's *anxiety symptom profile*—varies uniquely across anxiety disorder diagnoses. For example, in panic disorder, anxiety is uniquely and primarily focused on somatic sensations; in OCD, on intrusive thoughts; in posttraumatic stress disorder, on traumatic memories (Barlow, 1988, 2002), etc. When assessing a patient who reports problems with anxiety, it is crucial to identify the feared stimulus accurately not only because it is the foundation upon which diagnostic precision rests, but also because the other three components of a patient's *anxiety symptom profile*—feared consequences, fear triggers and contexts, and fear-related avoidance, escape, and safety behaviors—flow logically from this domain.<sup>1</sup>

### **A Novel Conceptualization of Feared Stimuli and Feared Consequences in Social Phobia**

Current research suggests that efficacious CBT for social phobia is mediated by reductions in patients' faulty beliefs in the likelihood and social cost of negative social events (see Foa, Franklin, Perry, & Herbert, 1996; Hofmann, 2004; McManus, Clark, & Hackmann, 2000; Smits, Rosenfield, McDonald, & Telch, 2006). Specifically, individuals with social phobia must learn during therapy that social interaction/performance is unlikely to lead to feared outcomes and that such outcomes, even if they occur, do not actually carry costly or catastrophic implications.

But what, specifically, is the feared stimulus in social phobia—or that which individuals with social phobia fear—that should be the precise target of exposure? At first blush, the answer seems obvious. Clinical and theoretical models of social phobia suggest a number of related possibilities, including negative social evaluation (e.g., Hofmann & Barlow, 2002), the loss of social rank or status (e.g., Gilbert, 2001), the inability to convey a desired social impression (Clark & Wells, 1995; Leary, 2001; Leary & Kowalski, 1995; Schlenker & Leary, 1982), and the emotional experience of embarrassment (Edelmann, 1987). At closer examination, however, all of these conceptualizations are unsatisfactory because they confuse the *feared stimulus* with the *feared consequences*. Negative social evaluation, the loss

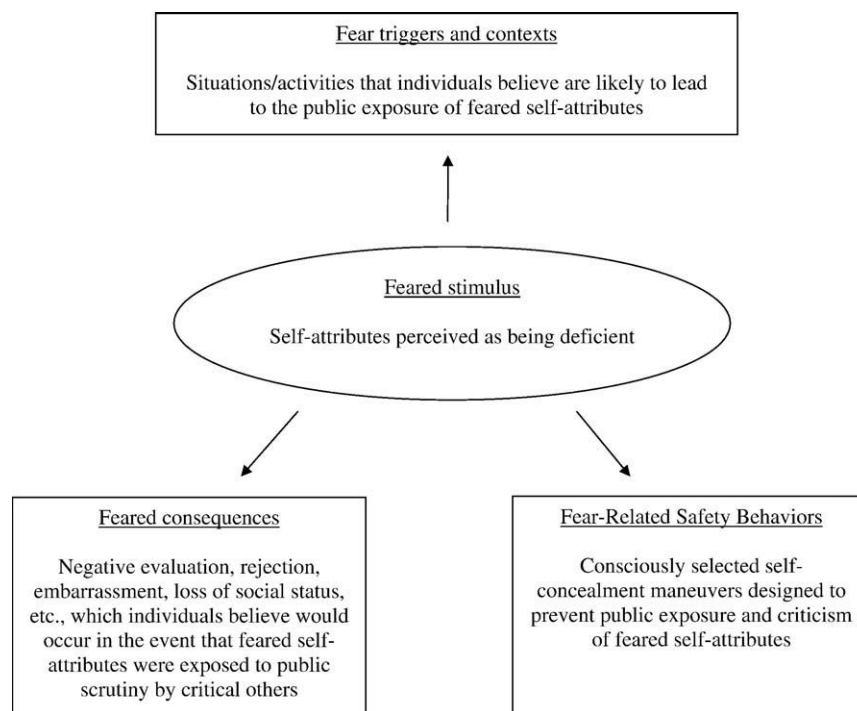
<sup>1</sup> For example, for patients with panic disorder, somatic sensations are the feared stimuli, while "losing control," "going crazy," or "having a heart attack" as a result of increased arousal are examples of feared consequences. Fear contexts are those in which panic-related sensations are likely to arise. Panic patients often rely on safety behaviors (e.g., Salkovskis, 1991) such as carrying pill bottles, water bottles, etc., to which they can turn in the event of perceived danger. The specific safety behaviors upon which each patient relies are somewhat idiosyncratic, depending on the precise nature of that patient's feared stimuli and consequences.

of social status, failure to convey a desired impression, and the experience of embarrassment are all *feared consequences*, analogous to fears of “going crazy,” “losing control,” or “having a heart attack” in panic disorder.

There has been increasing recognition, across both cognitive and interpersonal/relational theories of social anxiety, that social phobia is, at a fundamental level, a disorder encompassing a distorted, negative view of self (e.g., Alden, Mellings, & Ryder, 2001; Clark & Wells, 1995; Hook & Valentiner, 2002; Leary & Kowalski, 1995; Rapee & Heimberg, 1997). Studies have shown that highly socially anxious and phobic individuals perceive that their self attributes fall short of the characteristics they believe others expect them to possess (e.g., Strauman, 1989, 1992; Strauman & Higgins, 1987; Weilage & Hope, 1999). When anticipating, performing, and reflecting upon social encounters, individuals with social phobia shift attention inward, engage in detailed self-monitoring (Spurr & Stopa, 2002), and experience recurrent and excessively negative self-images that they perceive as being accurate (Hackmann, Clark, & McManus, 2000; Hackmann, Surawy, & Clark, 1998). Socially anxious and phobic individuals underestimate their social performance abilities relative to others' standards (Alden, Bieling, & Wallace, 1994; Moscovitch & Hofmann, 2007; Wallace & Alden, 1991) and retrospectively process social encounters in a manner that greatly exaggerates their shortcomings and minimizes their performance accomplishments (Alden & Wallace,

1995; Ashbaugh, Antony, McCabe, Schmidt, & Swinson, 2005; Norton & Hope, 2001; Rapee & Lim, 1992; Stopa & Clark, 1993). Efficacious treatment for social phobia tends to facilitate the reduction of negative self-focused attention and negative self-perception (e.g., Hofmann, Moscovitch, Kim, & Taylor, 2004; Woody, Chambless & Glass, 1997).

Thus, to answer our central question regarding the feared stimulus in social phobia, the empirical evidence cited above converges with clinical observation to suggest that individuals with social phobia are uniquely and primarily concerned about *characteristics of self that they perceive as being deficient or contrary to perceived societal expectations or norms*. According to this conceptualization, certain *attributes of self* are the focus of concern in social phobia in the same way that physical sensations are the focus of concern or fear in panic disorder and intrusive thoughts are the focus on concern or fear in OCD. Accordingly, negative evaluation, rejection, embarrassment, and loss of social status are consequences that individuals with social phobia fear will occur if those self-attributes are exposed for scrutiny by critical others. Whether a particular situation is thought of as being threatening depends crucially upon the nature of each patient's feared self-attributes and whether the patient believes he or she will be successful at concealing such attributes from public exposure. It follows from these premises that safety behaviors are self-protective, self-



**Figure 1.** Proposed model of the feared stimulus and functionally related clinical sequelae in social anxiety.

concealment strategies that serve the intended function of preventing the public exposure and criticism of feared<sup>2</sup> self-attributes. The types of safety behaviors that are used by each patient depend on the specific self-attributes that are the focus of concern. A general summary of this proposed model of social phobia is presented in Figure 1.

### Feared Stimuli in Social Phobia: Guiding Dimensions

It is proposed that all patients with social phobia focus their anxiety on perceived deficient characteristics of self that may be exposed to public scrutiny and criticized. However, there exists considerable heterogeneity between individuals with social phobia regarding the types of self-attributes that are the primary focus of concern. Clinical observation and emerging research (reviewed below) suggest that feared self-relevant stimuli can be characterized as falling into four broad dimensions: (1) perceived flaws in social skills and behaviors; (2) perceived flaws in concealing potentially visible signs of anxiety; (3) perceived flaws in physical appearance; and (4) perceived characterological (i.e., personality-related) flaws. These dimensions can be used as helpful guides to practitioners undertaking case conceptualization and treatment of individual patients with social phobia. Importantly, it should be emphasized that these four dimensions are *not* conceptualized here as being mutually exclusive, qualitatively unique entities. Rather, it is assumed that the dimensions are highly correlated with each other and that individuals with social phobia can—and often do—simultaneously experience concerns across all four dimensions. It is also possible that a hierarchical relationship exists amongst these dimensions, with concerns in one dimension potentially driving or giving rise to concerns in one or more of the other dimensions. At present, the precise nature of the relationship between proposed dimensions remains an empirical question requiring psychometric research (currently being undertaken in my laboratory).<sup>3</sup> However, it is argued here that outlining these dimensions would provide helpful direction for clinicians who wish to identify a particular patient's specific self-relevant

<sup>2</sup> It is unclear whether “feared stimulus” is the most appropriate language to use in the context of social phobia. It might be more accurate to label *shame* as the distress emotion most strongly associated with patients' focus on perceived negative self-attributes. It seems likely that anxiety is prominent when individuals with social phobia become aware of the prospect of future self-exposure, while fear is activated when self-exposure is imminent. Nevertheless, shame likely predominates during periods of self-focus, particularly during post-event processing in the immediate aftermath of self-exposure (see Leary, 2007, for related discussion).

<sup>3</sup> Two novel assessment inventories based on this model are currently being constructed and validated.

concerns and—in a functionally-related manner—the contexts that activate social anxiety and its sequelae. The crucial point is for the clinician to receive guidance in identifying the feared attributes of self rather than having to fit them neatly into one of these dimensions per se.

### Perceived Flaws in Social Skills and Behaviors

Individuals with social phobia will commonly present in clinical settings concerned that they lack the skills required to perform socially or interact effectively with others, or that they will unintentionally generate an embarrassing behavioral blunder in a social situation. When asked to consider specifically what they are afraid might happen in social situations that would incur negative evaluation from others, individuals whose anxiety is focused primarily on perceived flaws in their own social skills and behaviors will offer responses such as, “I will stutter,” “I will have nothing to say,” “I will do something stupid,” “I will act inappropriately,” etc. Several studies have examined participant versus observer ratings of social performance in patients with social phobia. Rapee and Lim (1992) found that although individuals with social phobia did not perform objectively worse than nonanxious controls in a public speech task, individuals with social phobia underestimated their performance (relative to observer ratings) to a significantly greater degree than controls. This pattern of results—demonstrating a tendency among highly socially anxious individuals and patients with social phobia to greatly overestimate negative aspects and underestimate positive aspects of their social performance—has since been replicated by a number of authors (Alden & Wallace, 1995; Hirsch, Meynen, & Clark, 2004; Kashdan & Roberts, 2004; Kocovski & Endler, 2000; Norton & Hope, 2001; Rapee & Hayman, 1996; Rodebaugh, 2004; Stopa & Clark, 1993; Vassilopoulos, 2005). Perceived flaws in social abilities seem to become particularly salient for socially anxious and phobic individuals when they are primed by contextual cues that signify the possibility of social rejection (Baldwin & Main, 2001) or the threat of evaluation from critical others who are perceived to hold unreachable performance standards (Moscovitch & Hofmann, 2007).

### Perceived Flaws in Controlling and Concealing Internal Feelings of Anxiety

Many individuals with social phobia are particularly concerned that they will show observable signs of internal feelings of anxiety, such as blushing, sweating, or shaking (Scholing & Emmelkamp, 1993, 1996). When asked to consider specifically what they are afraid might

happen in social situations that would incur negative evaluation from others, individuals whose anxiety is focused primarily on perceived flaws in controlling and concealing their internal feelings of anxiety will offer responses such as, “I will blush,” “I will sweat,” “My hands will shake,” etc. Research has shown that socially phobic and highly socially anxious individuals tend to overestimate the visibility of anxiety symptoms (McEwan & Devins, 1983) and believe that outward appearance accurately reflects internal physiological arousal (Mansell & Clark, 1999; Mellings & Alden, 2000; Papageorgiou & Wells, 2002; Wells & Papageorgiou, 2001). Socially anxious and phobic individuals believe that other people notice their symptoms of anxiety and interpret these symptoms in a negative manner (Roth, Antony, & Swinson, 2001; Voncken, Alden, & Bögels, 2007). It has been shown that individuals with social phobia demonstrate an attentional bias in the Stroop task to words depicting anxiety symptoms that are noticeable to others, but not to words describing nonnoticeable anxiety symptoms (Spector, Pecknold, & Libman, 2003). Gerlach, Wilhelm, Gruber, and Roth (2001) reported that socially phobic individuals with a primary complaint of blushing perceived that they blushed significantly more than social phobics without a primary complaint of blushing, despite no actual physiological differences in face coloration between the two groups. In a similar vein, Gerlach, Murlane, and Rist (2004) reported that relative to nonanxious controls, patients with social phobia were significantly more concerned about publicly broadcasting their heart rate to social observers than they were about listening to their heartbeat privately via headphones.

### Perceived Flaws in Physical Appearance

Some individuals with social phobia are focused anxiously on aspects of their own physical appearance. When asked to consider specifically what they are afraid might happen in social situations that would incur negative evaluation from others, individuals whose anxiety is focused primarily on perceived flaws in their own physical appearance will offer responses such as, “I am dressed inappropriately,” “I am ugly,” “My hair is messy,” etc. Rapee and Abbott (2006) found that individuals with social phobia who engaged in a public speech reported significantly lower ratings of physical attractiveness relative to nonclinical controls. In comparison to non-socially-anxious individuals, people who are highly socially anxious and socially phobic have more distorted body image (Izgiç, Akyüz, Dogan, & Kugu, 2004) and judge themselves to be less physically attractive (Montgomery, Haemmerlie, & Edwards, 1991). Other studies have found significant negative correlations between measures of social anxiety and body image

(Haemmerlie, Montgomery, & Melchers, 1988; Theron, Nel, & Lubbe, 1991).<sup>4</sup>

### Perceived Characterological Flaws

Finally, numerous patients with social phobia report social concern focused on characterological or personality-related self-attributes. When asked to consider specifically what they are afraid might happen in social situations that would incur negative evaluation from others, individuals whose anxiety is focused primarily on perceived flaws in their character or personality will offer responses such as, “I am boring,” “I am stupid,” “I am not cool or funny,” etc. Research has shown that individuals high in social anxiety tend to endorse negative personality traits as being self-descriptive (e.g., Mansell & Clark, 1999). In a recent study by Wilson and Rapee (2006), patients with generalized social phobia and nonanxious controls provided dimensional self-ratings of personality attributes that were both positive (e.g., competent, humorous, intelligent, etc.) and negative (boring, ignorant, lazy, etc.). Relative to the control group, patients with social phobia described their personality attributes as both significantly more negative and less positive, even after controlling for the effects of depression. This finding was replicated by the same authors in a second study (Wilson & Rapee, 2006), in which social phobics and controls were asked to make a binary (yes/no) decision about whether particular positive and negative personality attributes were descriptive of them. It was also reported that patients rated their level of certainty regarding self-views significantly lower than controls, a finding that is consistent with some recent data from our lab (Moscovitch, Orr, Rowa, Gehring Reimer, & Antony, in press). Overall, these results suggest that many individuals with social phobia hold personality-related self-views that are less favorable and more uncertain than nonanxious individuals.

### Clinical Implications

Recently, there have been valuable efforts to develop CBT frameworks that are specifically customized to the unique features of social phobia (e.g., Clark et al., 2003; Hofmann, 2007). Here, I have presented a new model of

<sup>4</sup>These findings raise interesting questions about the diagnostic boundary between certain presentations of social phobia and body dysmorphic disorder (BDD), and, as noted by others (e.g., Buhlmann, Reuse, Renaud, & Wilhelm, 2008; Coles et al., 2006), future research is needed to help elucidate this boundary more clearly. Some have suggested that concerns about physical appearance in the context of social phobia often occur concurrently with other types of self-relevant social concerns, while concerns reported by individuals with BDD tend to focus exclusively on physical appearance and to engage in more compulsive, OCD-like rituals in response to such concerns (Buhlmann et al., 2008).

case conceptualization and treatment that can be tailored to the specific features of *individual patients* with social phobia. Based on the proposed conceptual framework, a group of patients with the same apparently straightforward diagnosis of social phobia might present with significantly different constellations of symptoms, depending on the precise nature of each individual's feared self-attributes. For example, a patient with social phobia who fears that he is dull or boring is likely to be particularly afraid of social situations in which he may have to reveal personal information about himself to others (e.g., one-on-one conversations, dating situations, cocktail parties, etc.). He is likely to avoid such situations or, when confronted with them, to employ safety behaviors such as asking an excessive number of questions of the other person to deflect attention away from himself, or mentally censoring or overrehearsing what he is going to say before he says it. On the other hand, a patient with social phobia who fears exhibiting physical symptoms of anxiety that may be visible to others, such as blushing or sweating, will likely fear and avoid performance situations (e.g., public speaking; job interviews) or social encounters in which she could become the center of attention (e.g., having dinner with colleagues). This individual might use a different set of safety behaviors, such as wearing clothing that hides perceived "problem areas" (e.g., turtlenecks if the individual is negatively focused on blushing around her neck; or suit jackets if the individual is focused on sweating through her shirt, etc.), carrying items to help cover up or fix perceived problem areas (e.g., "cover up" makeup, hats, scarves, handkerchiefs, etc.), taking medications (e.g., benzodiazepines) to prevent anxious

arousal that leads to visible physical symptoms, and frequently leaving social situations to visibly inspect herself in the mirror. Clearly, treatment would proceed quite differently in each of these cases, and success in designing and implementing appropriate exposures would depend fundamentally on the therapist's ability to assess the nature of each patient's feared self-attributes and the functionally interrelated aspects of each patient's anxiety symptom profile. Table 1 contains an illustrative summary of how individual differences in feared stimulus dimensions between patients with social phobia can lead to important variations in automatic thoughts, fear contexts, and safety behaviors.

Consequently, a therapist who adopts the functional model presented here and carefully assesses the nature of feared stimuli across the proposed self-relevant dimensions is able to devise *informed predictions* about probable fear contexts and safety behaviors for each patient. Such informed predictions would reduce dependency on patient self-reported insight regarding these dimensions, which can be unreliable or, at the very least, incomplete. Undertaking this assessment process on the basis of the proposed model would help clarify in sharp focus the framework upon which exposure-based treatment should be based in order to maximize clinical outcomes for individuals with social phobia. Collecting this information will enable therapist and patient to collaboratively implement exposures that will allow the patient to fully confront feared stimuli, perform clear and unambiguous tests of feared consequences, and eliminate avoidance and safety behaviors that interfere with the acquisition of new, corrective learning (e.g.,

Table 1  
Illustration of Individual Differences across Feared Stimulus Dimensions in Social Phobia

Feared Stimulus Dimensions	Automatic Thoughts "People will notice that..."	Fear Triggers and Contexts (Threatening Social Situations)	Possible Safety Behavior(s)
1. Perceived flaws in social skills and behaviors	"...I will have nothing to say." "...I will do something stupid."	Activities that require skilled social initiative (e.g., one-on-one conversations; speech performances)	Excessive prior rehearsal and preparation
2. Perceived flaws in controlling and concealing internal feelings of anxiety	"... I will sweat." "... My hands will shake."	Social activities that will promote physiological arousal (e.g., public speaking, job interviews, etc.)	Wear clothes that hide "problem areas" (e.g., layers to conceal sweating under arms); use benzodiazepines
3. Perceived flaws in physical appearance	"...I am dressed inappropriately." "...I am ugly." "...I am fat"	Activities in which physical attributes may be the focus of attention (e.g., walking along a crowded street; driving in heavy traffic; going to a party)	Attempt to conceal perceived "problem areas" (e.g., cover up perceived blemishes with makeup)
4. Perceived characterological flaws	"...I am boring." "...I am stupid." "...I am not cool or funny."	Activities in which personal information is revealed (e.g., one-on-one conversation) or feared attributes are explicitly tested (e.g., participating in class; telling a joke)	Deflect focus of conversation from self with excessive question-asking; practice mental self-censorship

Foa & Kozak, 1986; Foa & McNally, 1996; Powers et al., 2007). Presumably, this will facilitate enhanced treatment outcomes.

Based on the proposed model, the following five specific recommendations are offered for improving the treatment of social phobia:

1. *Carefully assess anxiety symptom profiles.* Every patient's feared stimuli (i.e., perceived self-deficiencies) and consequences should be identified and operationalized as precisely as possible, and this should be followed by an assessment of safety behaviors and fear contexts/situations that are functionally related to perceived self-deficiencies. To begin the assessment of these dimensions, it is helpful to ask patients, "What are you afraid that others will notice about you that will lead them to reject you?" "How do you try to prevent them from noticing?" and "In what types of situations does this concern tend to come up for you?" This assessment may continue into treatment, as patients who are initially unaware of the specific personal deficiencies they are afraid of revealing will benefit from monitoring their symptoms and thoughts in feared social situations at the start of therapy.

2. *In therapy, shift the emphasis from situational exposure to dimension-specific self-exposure.* Flowing directly from the assessment and conceptualization of feared self-deficiencies, clinicians should frame exposure as an opportunity for patients to reveal feared aspects of themselves to potentially critical others. This approach requires a subtle shift in the way that therapists think and speak about exposure from a more traditional perspective of having patients confront feared social situations in the service of experiencing anxiety reduction (e.g., Rodebaugh, Holaway, & Heimberg, 2004) to a rationale that emphasizes having patients reveal their authentic, nonconcealed selves to others in the service of testing feared social and interpersonal consequences. Within this paradigm, feared social situations still serve as the context in which exposure occurs, and anxiety reduction as a result of new learning is still emphasized as a desirable outcome; however, the primary focus of exposure is on dimension-specific aspects of self rather than on feared situations per se.

For example, most CBT therapists would agree that patients presenting with paruresis or "shy bladder syndrome," a rare condition that is currently considered a type of social phobia (e.g., Vythilingum, Stein, & Soifer, 2002), would benefit from repeated exposure to crowded bathrooms. However, the proposed model predicts that maximal benefit will only be achieved during these exposures if the therapist properly understands each patient's precise, idiosyncratic self-related focus of fear and designs exposure exercises specifically to help patients test these fears. Three paruresis patients might each present with widely differing specific fears, each of

which would require the *same* situational exposure but vastly different exposures to aspects of self. Patient A might fear producing an audibly weak or delayed stream of urine, which the patient believes might reveal something negative about his personality (e.g., incompetent or not "masculine" enough), while Patient B fears having a panic reaction while waiting in line to use the urinal and having others notice his symptoms of anxiety, and Patient C is concerned specifically about having other men observe (and negatively evaluate) his anatomical endowments or other aspects of his physical appearance. Clearly, a situational model is insufficient to capture this rich variability in patient presentation. Repeated exposures to a crowded bathroom situation would not be therapeutic per se unless both the therapist and patients were united in their understanding of the specific self-related targets of exposure.

3. *Develop creative strategies for promoting self-exposure and eliminating self-concealment.* In addition to shifting the focus of exposure, therapists should employ creative clinical strategies to enable patients to test their potentially faulty beliefs that concealing feared aspects of themselves prevents catastrophic social outcomes and that exposing those aspects to others for public scrutiny will lead to negative evaluation and rejection. For example, two recent innovative intervention strategies that have shown promising clinical efficacy in socially anxious and phobic samples include, (a) video feedback techniques, in which patients are encouraged to drop their safety behaviors during social interaction and notice (on video) the resulting, corresponding enhancement in their social abilities and evoked social responses relative to when they use safety behaviors (e.g., Clark, 2001; Wells, 2001); and, (b) "social mishap" exposures, in which patients are instructed to intentionally perform small blunders in real-life social situations while carefully observing the (typically, nonpunitive) consequences (e.g., Hofmann, 2007; Hofmann & Scepkowski, 2006). Both of these techniques could easily be tailored to target patients' specific dimensions of perceived self-deficiencies. For example, for a patient who habitually walks in a slow, rigid manner because he is concerned about appearing clumsy or foolish, video feedback interventions could be used to allow the patient to visually compare how he appears when he walks slowly with a stiff posture versus how he appears when he drops his self-concealment strategies and moves more quickly and naturally. Following this, "social mishap" exposures would enable this patient to experiment with intentional clumsiness (e.g., tripping on a crowded sidewalk or losing his balance on the bus) while observing the noncatastrophic social outcomes that ensue. Such interventions should be moderated for each patient, depending on his or her unique anxiety symptom profile.

Video feedback and social-mishap exposures represent only two examples of creative possibilities. Future research should examine whether these and other potential interventions are particularly effective at ameliorating negative self-perception related to some feared self-attributes but not others (for instance, my own clinical experience suggests that video feedback methods might be less effective for individuals with social phobia whose primary self-related concerns focus on physical appearance—an observation that is currently undergoing empirical laboratory testing). Over time, it is possible that differing empirically supported clinical strategies will be established as having specific efficacy across the four proposed dimensions of feared self-attributes, although it is obviously too early at this time to make dimension-specific clinical recommendations.

4. *Challenge patients' misperceptions of social norms and the inflated costs of violating them.* Clinicians should encourage socially anxious patients to test the belief that conforming to rigid perceived social norms prevents catastrophic social outcomes and that breaking such norms carries significant social costs. Identifying and operationalizing specific beliefs for each individual patient (across the four proposed feared stimulus dimensions) about expected standards and norms is a crucial initial step in treatment. Examples of specific (unoperationalized) beliefs include, "I should not appear clumsy" (social skills and behaviors); "I am expected to have a strong, clear voice when speaking in front of others" (signs of anxiety); "My hair should always look perfect" (physical appearance); and, "I must tell funny stories in order to have a good conversation" (personality), etc. Thereafter, useful therapeutic tools include collaborative cognitive restructuring as well as a variety of behavioral experiments (Bennett-Levy et al., 2004), such as intentional social mishap exposures (e.g., Hofmann, 2007; Hofmann & Scepkowski, 2006), reality testing, and evidence gathering via observation and surveys of friends, relatives, and colleagues.

Though behavioral experiments are likely to help patients change their maladaptive beliefs about the likelihood and costs of negative social outcomes, it is nevertheless useful for therapists to consider the notion that some patients do consistently demonstrate *authentic* skills deficits or character flaws, and that such patients will occasionally experience *genuine* negative social or interpersonal consequences (e.g., losing one's job, not being asked on a second date, etc.). In this vein, future research is needed to clarify for whom and under what conditions it is necessary simply to help patients decatastrophize such outcomes and when, ultimately, to employ the fundamentally distinct but potentially helpful option of social skills training (e.g., Davidson et al., 2004).

5. *Challenge patients' misperceptions of the critical audience observer.* Practitioners should utilize strategies to enable patients to test the belief that other people are vigilant, critical evaluators who notice aspects of patients' external and internal experiences that patients appraise as being negative. Research has shown that individuals overestimate the extent to which social blunders will lead others to evaluate them negatively (Savitsky, Epley, & Gilovich, 2001). This is because they tend to underestimate observers' tendencies, when making social evaluations, to be charitably empathic and take into account nonfocal, positive elements of performance aside from the blunder itself as well as a range of situational factors that observers tend to consider when forming impressions of others (i.e., the *focusing illusion*; Savitsky et al., 2001). Other studies by Gilovich and colleagues (e.g., Gilovich & Savitsky, 1999; Gilovich, Savitsky, & Medvec, 1998) have shown that the *illusion of transparency*—people's exaggerated belief in the visibility of their internal states to others—is a common social phenomenon. People are likely to overestimate the extent to which others notice aspects of themselves upon which they are focused, including "emotional leakage" and variability in performance and appearance across time, partly because they overestimate the extent to which they are "in the spotlight" and fail to appreciate the extent to which others' attention is actually focused elsewhere (e.g., Gilovich, Kruger, & Medvec, 2002).

It has been demonstrated that simply informing speech-anxious individuals about the *illusion of transparency* leads to later improvements in both self- and observer-ratings of speech performance (Savitsky & Gilovich, 2003). Furthermore, when patients with social phobia are specifically instructed to focus their attention externally and to notice salient social cues in their environment, such as other people's reactions to them, they report significant reductions in social anxiety and negative beliefs (Wells & Papageorgiou, 1998). Although researchers have yet to examine directly the mechanisms that may account for these effects, Wells and Papageorgiou (1998) suggested that external attention may promote these changes by weakening patients' focus on interoceptive cues of anxiety, thereby disrupting the ruminative cycle of self-focused attention that facilitates the maintenance of safety behaviors and discourages patients from generating and considering alternative beliefs. It is also possible that by focusing their attention externally, individuals with social phobia are better able to detect salient social cues about the demands of the task as well as the performance standards expected of them by significant others involved in the social encounter. Whether such effects are moderated by specific patient profiles related to types of feared self-attributes is an important empirical question for future clinical research.



## Discussion

What is the core fear in social phobia? As reviewed above, converging clinical and empirical evidence suggest that individuals with social phobia are uniquely and primarily concerned about exposing self-attributes, which they perceive as being deficient, to potentially critical audience observers. Clinicians are guided to consider feared self-attributes as falling within four broad dimensions: (1) perceived flaws in social skills and behaviors; (2) perceived flaws in concealing potentially visible signs of anxiety; (3) perceived flaws in physical appearance; and (4) perceived characterological flaws.

The central argument of the present paper is that case conceptualization and treatment of patients with social phobia should be individually tailored according to the proposed paradigm and the overarching principle that *the self-attributes themselves—rather than feared social situations—are the most direct and sensible targets for exposure*. In exposure activities, practitioners should help patients experiment with intentionally “revealing” their perceived self-deficiencies within socially threatening contexts (i.e., in which patients believe critical public scrutiny of them is likely to occur). Through this process, patients will more directly, and perhaps more successfully, correct their anxiety-maintaining belief that exposing private aspects of self will lead to catastrophic and costly outcomes.

How does the proposed model enhance our understanding of social phobia in relation to existing theoretical models? According to Clark and Wells' (1995) cognitive model of social phobia, individuals with social phobia: (1) fear that they will *behave* (italics added) socially in an inept fashion, which would result in disastrous consequences; (2) become preoccupied with their own somatic sensations of anxiety in social situations, which leads to reduced processing of external social cues; and (3) possess unstable self-schemata characterized by the emergence of negative self-views only in threatening social situations (and the predominance of more positive self-views when alone). The model proposed here theoretically challenges these three tenets. First, it is argued that the feared stimuli in social phobia often encompass a much wider range of self-relevant attributes than social *behaviors* alone. Though concerns about social behaviors may be paramount for some individuals with social phobia, feared self-attributes are conceptualized here as falling within four broad dimensions, each of which may represent a focus of concern for patients. Second, it is proposed that although all individuals with social phobia demonstrate heightened self-focused attention during social threat, the specific target of self-focus differs between individuals depending on the idiosyncratic self-attributes they fear, with only a subset of patients focusing their concern

specifically on internal physical sensations of anxiety. Third, it is suggested here that individuals with social phobia actually possess *stable*, negative self-schemata (even when alone), which become *activated*—and, therefore, observable and measurable—only in contexts or situations that trigger the patient's belief that his or her feared self-attributes are likely to become scrutinized by critical evaluators (e.g., [Moscovitch & Hofmann, 2007](#)). Thus, feared situations are conceptualized here as being a function of the contexts that activate patients' fears that their perceived self-deficiencies will be on public display. These three claims represent testable hypotheses that must be examined in rigorous experimental research.

Social phobia is a heterogeneous disorder encompassing a broad range of symptom dimensions and patient presentations ([Hofmann, Heinrichs, & Moscovitch, 2004](#)). Our current nosological system represented in *DSM-IV-TR* ([American Psychiatric Association, 2000](#)) distinguishes between generalized and nongeneralized subtypes of social phobia. The DSM specifically instructs practitioners to assign the *generalized* subtype if the individual fears “most” social situations, apparently signifying the central importance of quantifying feared situations for the assessment and treatment of patients with this disorder. There is some utility in this system, as research has shown that generalized social phobia might be qualitatively distinct—both in clinical characteristics and treatment response—from more discrete manifestations of social anxiety, such as public speaking phobia (see [Hofmann et al., 2004](#) for a review of this literature). In addition, identifying patients' feared social situations during therapy aids the development of a *fear and avoidance hierarchy*, which in turn, facilitates exposures. However, there is little evidence to suggest that categorizing individuals with social phobia into distinct groups based solely on the situations they fear is clinically advantageous per se ([Vriends, Becker, Meyer, Michael, & Margraf, 2007](#)), and research has generally failed to support the nosological utility of the current DSM subtyping system ([Hofmann et al., 2004](#)). Thus, defining social phobia subtypes on the basis of feared social situations likely conveys the erroneous message that situational fears represent the core clinical characteristics of social phobia. Unfortunately, such a message might prevent practitioners from both treating patients with social phobia in a manner that targets more important underlying symptoms and, consequently, using this information to tailor and individualize therapy in a fashion that most effectively targets patients' idiosyncratic clinical profiles. With additional research to corroborate its validity, the model introduced here may present a viable alternative to the current subtyping system in future editions of the DSM.

By both directly targeting the core underlying process of self-concealment and individually tailoring assessment and treatment to organize and address idiosyncratic symptom profiles of individual patients, the proposed symptom-based model is designed to help improve empirically supported therapy outcomes for individuals with social phobia. A systematic program of clinical-experimental research is currently under way to test the validity of this model.

## References

- Alden, L. E., Bieling, P. J., & Wallace, S. T. (1994). Perfectionism in an interpersonal context: A self-regulation analysis of dysphoria and social anxiety. *Cognitive Therapy and Research, 18*, 297–316.
- Alden, L. E., Mellings, T. M. B., & Ryder, A. G. (2001). Social anxiety, social phobia, and the self. In S. G. Hofmann, & P. M. DiBartolo (Eds.), *From social anxiety to social phobia: Multiple perspectives* (pp. 304–320). Needham Heights, MA: Allyn & Bacon.
- Alden, L. E., & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. *Behavior Research and Therapy, 33*, 497–505.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed. – text revision). Washington, DC: Author.
- Ashbaugh, A. R., Antony, M. M., McCabe, R. E., Schmidt, L. A., & Swinson, R. P. (2005). Self-evaluative biases in social anxiety. *Cognitive Therapy and Research, 29*, 387–398.
- Baldwin, M. W., & Main, K. J. (2001). Social anxiety and the cued activation of relational knowledge. *Personality and Social Psychology Bulletin, 27*, 1637–1647.
- Barlow, D. H. (1988). *Anxiety and its disorders: The nature and treatment of anxiety and panic*. New York: Guilford Press.
- Barlow, D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.) New York: Guilford Press.
- Bennett-Levy, J., Butler, G., Fennell, M., Hackman, A., Mueller, M., & Westbrook, D. (Eds.). (2004). *Oxford guide to behavioral experiments in cognitive therapy*. New York: Oxford University Press.
- Buhlmann, U., Reese, H. E., Renaud, S., & Wilhelm, S. (2008). Social anxiety and the cued activation of relational knowledge. *Personality and Social Psychology Bulletin, 5*, 39–49.
- Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology, 52*, 685–716.
- Clark, D. M. (2001). A cognitive perspective on social phobia. In W. R. Crozier, & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research, and interventions relating to the self and shyness* (pp. 405–430). New York: John Wiley & Sons.
- Clark, D. M., Ehlers, A., McManus, F., Hackman, A., Fennell, M., Campbell, H., Flower, T., Davenport, C., & Louis, B. (2003). Cognitive therapy versus fluoxetine I generalized social phobia: A randomized placebo-controlled trial. *Journal of Consulting and Clinical Psychology, 71*, 1058–1067.
- Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). New York: Guilford Press.
- Coles, M. E., Phillips, K. A., Menard, W., Pagano, M. E., Fay, C., Weisberg, R. E., & Stout, R. L. (2006). Body dysmorphic disorder and social phobia: Cross-sectional and prospective data. *Depression and Anxiety, 23*, 26–33.
- Davidson, J. R. T., Foa, E. B., Huppert, J. D., Keefe, F. J., Franklin, M. E., Compton, J. S., Zhao, N., Connor, K. M., Lynch, T. R., & Gadde, K. M. (2004). Fluoxetine, comprehensive cognitive behavioral therapy, and placebo in generalized social phobia. *Archives of General Psychiatry, 61*, 1005–1013.
- Edelmann, R. J. (1987). *The psychology of embarrassment*. Chichester, England: Wiley.
- Foa, E. B., Franklin, M. E., Perry, K. J., & Herbert, J. D. (1996). Cognitive biases in generalized social phobia. *Journal of Abnormal Psychology, 105*, 433–439.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin, 99*, 20–35.
- Foa, E. B., & McNally, R. J. (1996). Mechanisms of change in exposure therapy. In R. M. Rapee (Ed.), *Current controversies in the anxiety disorders* (pp. 329–343). New York: The Guilford Press.
- Gerlach, A. L., Murlane, D., & Rist, F. (2004). Public and private heart rate feedback in social phobia: A manipulation of anxiety visibility. *Cognitive Behavior Therapy, 33*, 36–45.
- Gerlach, A. L., Wilhelm, F. H., Gruber, K., & Roth, W. T. (2001). Blushing and physiological arousability in social phobia. *Journal of Abnormal Psychology, 110*, 247–258.
- Gilbert, P. (2001). Evolution and social anxiety: The role of attraction, social competition, and social hierarchies. *The Psychiatric Clinics of North America, 24*, 723–751.
- Gilovich, T., Kruger, J., & Medvec, V. H. (2002). The spotlight effect revisited: Overestimating the manifest variability of our actions and appearance. *Journal of Experimental Social Psychology, 38*, 93–99.
- Gilovich, T., & Savitsky, K. (1999). The spotlight effect and the illusion of transparency: Egocentric assessments of how we are seen by others. *Current Directions in Psychological Science, 8*, 165–168.
- Gilovich, T., Savitsky, K., & Medvec, V. H. (1998). The illusion of transparency: Biased assessments of others' ability to read our emotional states. *Journal of Personality and Social Psychology, 75*, 332–346.
- Hackmann, A., Clark, D. M., & McManus, F. (2000). Recurrent images and early memories in social phobia. *Behaviour Research and Therapy, 38*, 601–610.
- Hackmann, A., Surawy, C., & Clark, D. M. (1998). Seeing yourself through others' eyes: A study of spontaneously occurring images in social phobia. *Behavioral and Cognitive Psychotherapy, 26*, 3–12.
- Haemmerlie, F. M., Montgomery, R. L., & Melchers, J. (1988). Social support, perceptions of attractiveness, weight, and the CPI in socially anxious males and females. *Journal of Clinical Psychology, 44*, 435–441.
- Heimberg, R. G., Liebowitz, M. R., Hope, D. A., Schneier, F. R., Holt, C. S., Welkowitz, L. A., et al. (1998). Cognitive behavioral group therapy vs phenelzine therapy for social phobia: 12-week outcome. *Archives of General Psychiatry, 55*, 1133–1141.
- Hirsch, C. R., Meynen, T., & Clark, D. M. (2004). Negative self-imagery in social anxiety contaminates social interactions. *Memory Special Issue: Memory: Mental imagery and memory in psychopathology, 12*, 496–506.
- Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy, 36*, 193–209.
- Hofmann, S. G. (2004). Cognitive mediation of treatment change in social phobia. *Journal of Consulting and Clinical Psychology, 72*, 392–399.
- Hofmann, S. G., & Barlow, D. H. (2002). Social phobia (social anxiety disorder). In D. H. Barlow (Ed.), *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed., pp. 454–476). New York: Guilford Press.
- Hofmann, S. G., Heinrichs, N., & Moscovitch, D. A. (2004). The nature and expression of social phobia: Toward a new classification. *Clinical Psychology Review Special Issue: Social Phobia and Social Anxiety, 24*, 769–797.
- Hofmann, S. G., Moscovitch, D. A., Kim, H., & Taylor, A. N. (2004). Changes in self-perception during treatment of social phobia. *Journal of Consulting and Clinical Psychology, 72*, 588–596.
- Hofmann, S. G., & Scepkowski, L. A. (2006). Social self-reappraisal therapy for social phobia: preliminary findings. *Journal of Cognitive Psychotherapy, 20*, 45–57.
- Hook, J. N., & Valentiner, D. P. (2002). Are specific and generalized social phobias qualitatively distinct? *Clinical Psychology: Science and Practice, 9*, 379–395.
- Izgiç, F., Akyüz, G., Dogan, O., & Kugu, N. (2004). Social phobia among university students and its relation to self-esteem and body image. *Canadian Journal of Psychiatry, 49*, 630–634.

- Kamphuis, J. H., & Telch, M. J. (2000). Effects of distraction and guided threat reappraisal on fear reduction during exposure-based treatments for specific fears. *Behaviour Research and Therapy*, *38*, 1163–1181.
- Kashdan, T. B., & Roberts, J. E. (2004). Social anxiety's impact on affect, curiosity, and social self-efficacy during a high self-focus social threat situation. *Cognitive Therapy and Research*, *28*, 119–141.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, *62*, 593–602.
- Kocovski, N. L., & Endler, N. S. (2000). Self-regulation: Social anxiety and depression. *Journal of Applied Biobehavioral Research*, *5*, 80–91.
- Leary, M. R. (2001). Shyness and the self: Attentional, motivational, and cognitive self-processes in social anxiety and inhibition. In W. R. Crozier, & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 217–234). New York: John Wiley & Sons.
- Leary, M. R. (2007). Motivational and emotional aspects of the self. *Annual Review of Psychology*, *58*, 317–344.
- Leary, M. R., & Kowalski, R. M. (1995). The self-presentation model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 94–112). New York: Guilford Press.
- Mansell, W., & Clark, D. M. (1999). How do I appear to others? Social anxiety and processing of the observable self. *Behaviour Research and Therapy*, *37*, 419–434.
- McEwan, K. L., & Devins, G. M. (1983). Is increased arousal in social anxiety noticed by others? *Journal of Abnormal Psychology*, *92*, 417–421.
- McManus, F., Clark, D. M., & Hackmann, A. (2000). Specificity of cognitive biases in social phobia and their role in recovery. *Behavioral and Cognitive Psychotherapy*, *28*, 201–209.
- Mellings, T. M. B., & Alden, L. E. (2000). Cognitive processes in social anxiety: The effects of self-focus, rumination and anticipatory processing. *Behaviour Research and Therapy*, *38*, 243–257.
- Montgomery, R. L., Haemmerlie, F. M., & Edwards, M. (1991). Social, personal, and interpersonal deficits in socially anxious people. *Journal of Social Behavior & Personality*, *6*, 859–872.
- Moscovitch, D. A., Antony, M. M., & Swinson, R. P. (2009). Exposure-based treatments for anxiety disorders: Theory and process. In M. M. Antony, & M. B. Stein (Eds.), *Handbook of anxiety and anxiety disorders*. New York: Oxford University Press.
- Moscovitch, D. A., & Hofmann, S. G. (2007). When ambiguity hurts: social standards moderate self-appraisals in generalized social phobia. *Behaviour Research and Therapy*, *45*, 1039–1052.
- Moscovitch, D. A., Orr, E., Rowa, K., Gehring Reimer, S., & Antony, M. M. (in press). *Behaviour Research and Therapy*.
- Norton, P. J., & Hope, D. A. (2001). Kernels of truth or distorted perceptions: Self and observer ratings of social anxiety and performance. *Behavior Therapy*, *32*, 765–786.
- Otto, M. W., Pollack, M. H., Gould, R. A., Worthington, J. J., McArdle, E. T., Rosenbaum, J. F., & Heimberg, R. G. (2000). A comparison of the efficacy of clonazepam and cognitive behavioral group therapy for treatment of social phobia. *Journal of Anxiety Disorders*, *14*, 345–358.
- Papageorgiou, C., & Wells, A. (2002). Effects of heart rate information on anxiety, perspective taking, and performance in high and low social-evaluative anxiety. *Behavior Therapy*, *33*, 181–199.
- Persons, J. B. (2005). Empiricism, mechanism, and the practice of cognitive-behavior therapy. *Behavior Therapy*, *36*, 107–118.
- Powers, M. B., Smits, J., Leyro, T. M., & Otto, M. (2007). Translational research perspectives on maximizing the effectiveness of exposure therapy. In D. C. S. Richard, & D. Lauterbach (Eds.), *Handbook of the Exposure Therapies*. Academic Press.
- Powers, M. B., Smits, J. A. J., & Telch, M. J. (2004). Disentangling the effects of safety-behavior utilization and safety-behavior availability during exposure-based treatment: A placebo-controlled trial. *Journal of Consulting and Clinical Psychology*, *72*, 448–454.
- Rapee, R. M., & Abbott, M. J. (2006). Mental representation of observable attributes in people with social phobia. *Journal of Behavior Therapy and Experimental Psychiatry*, *37*, 113–126.
- Rapee, R. M., & Hayman, K. (1996). The effects of video feedback on the self-evaluation of performance in socially anxious subjects. *Behaviour Research and Therapy*, *34*, 315–322.
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, *35*, 741–756.
- Rapee, R. M., & Lim, L. (1992). Discrepancy between self- and observer ratings of performance in social phobics. *Journal of Abnormal Psychology*, *101*, 728–731.
- Rodebaugh, T. L. (2004). I might look OK, but I'm still doubtful, anxious, and avoidant: The mixed effects of enhanced video feedback on social anxiety symptoms. *Behaviour Research and Therapy*, *42*, 1435–1451.
- Rodebaugh, T. L., Holaway, R. M., & Heimberg, R. G. (2004). The treatment of social anxiety disorder. *Clinical Psychology Review Special Issue: Social Phobia and Social Anxiety*, *24*, 883–908.
- Rodriguez, B. I., & Craske, M. G. (1993). The effects of distraction during exposure to phobic stimuli. *Behaviour Research and Therapy*, *31*, 549–558.
- Roth, D., Antony, M. M., & Swinson, R. P. (2001). Interpretations for anxiety symptoms in social phobia. *Behaviour Research and Therapy*, *39*, 129–138.
- Salkovskis, P. M. (1991). The importance of behavior in the maintenance of anxiety and panic: A cognitive account. *Behavioral Psychotherapy Special Issue: The hanging face of behavioral psychotherapy*, *19*, 6–19.
- Savitsky, K., Epley, N., & Gilovich, T. (2001). Do others judge us as harshly as we think? Overestimating the impact of our failures, shortcomings, and mishaps. *Journal of Personality and Social Psychology*, *81*, 44–56.
- Savitsky, K., & Gilovich, T. (2003). The illusion of transparency and the alleviation of speech anxiety. *Journal of Experimental Social Psychology*, *39*, 618–625.
- Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization model. *Psychological Bulletin*, *92*, 641–669.
- Scholing, A., & Emmelkamp, P. M. (1993). Cognitive and behavioral treatments of fear of blushing, sweating, or trembling. *Behaviour Research and Therapy*, *31*, 155–170.
- Scholing, A., & Emmelkamp, P. M. (1996). Treatment of fear of blushing, sweating, or trembling: Results at long term follow-up. *Behavior Modification*, *20*, 338–356.
- Smits, J. A. J., Rosenfield, D., McDonald, R., & Telch, M. J. (2006). Cognitive mechanisms of social anxiety reduction: An examination of specificity and temporality. *Journal of Consulting and Clinical Psychology*, *74*, 1203–1212.
- Spector, I., Pecknold, J. C., & Libman, E. (2003). Selective attentional bias related to the noticeability aspect of anxiety symptoms in generalized social phobia. *Journal of Anxiety Disorders*, *17*, 517–531.
- Spurr, J. M., & Stopa, L. (2002). Self-focused attention in social phobia and social anxiety. *Clinical Psychology Review*, *22*, 947–975.
- Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of Abnormal Psychology*, *98*, 14–22.
- Strauman, T. J. (1992). Self-guides, autobiographical memory, and anxiety and dysphoria: Toward a cognitive model of vulnerability to emotional distress. *Journal of Abnormal Psychology*, *101*, 87–95.
- Strauman, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology Special Issue: Integrating personality and social psychology*, *53*, 1004–1014.
- Stopa, L., & Clark, D. M. (1993). Cognitive processes in social phobia. *Behaviour Research and Therapy*, *31*, 255–267.
- Telch, M. J., Valentiner, D. P., Ilai, D., Young, P. R., Powers, M. B., & Smits, J. A. J. (2004). Fear activation and distraction during the emotional processing of claustrophobic fear. *Journal of Behavior Therapy and Experimental Psychiatry*, *35*, 219–232.
- Theron, W. H., Nel, E. M., & Lubbe, A. J. (1991). Relationship between body-image and self-consciousness. *Perceptual and Motor Skills*, *73*, 979–983.

- Vassilopoulos, S. (2005). Social anxiety and the effects of engaging in mental imagery. *Cognitive Therapy and Research, 29*, 261–277.
- Voncken, M. J., Alden, L. E., & Bögels, S. M. (2007). Hiding anxiety versus acknowledgment of anxiety in social interaction: Relationship with social anxiety. *Behaviour Research and Therapy, 44*, 1673–1679.
- Vriends, N., Becker, E. S., Meyer, A., Michael, T., & Margraf, J. (2007). Subtypes of social phobia: Are they of any use? *Journal of Anxiety Disorders, 21*, 59–75.
- Vythilingum, B., Stein, D. J., & Soifer, S. (2002). Is “shy bladder syndrome” a subtype of social anxiety disorder: A survey of people with paruresis. *Depression and Anxiety, 16*, 84–87.
- Wallace, S. T., & Alden, L. E. (1991). A comparison of social standards and perceived ability in anxious and nonanxious men. *Cognitive Therapy and Research, 15*, 237–254.
- Weilage, M., & Hope, D. A. (1999). Self-discrepancy in social phobia and dysthymia. *Cognitive Therapy and Research, 23*, 637–650.
- Wells, A. (2001). The maintenance and treatment of social phobia: A cognitive approach. *Tidsskrift for Norsk Psykologforening, 38*, 717–724.
- Wells, A., & Papageorgiou, C. (1998). Social phobia: Effects of external attention on anxiety, negative beliefs, and perspective taking. *Behavior Therapy, 29*, 357–370.
- Wells, A., & Papageorgiou, C. (2001). Social phobic interoception: Effects of bodily information on anxiety, beliefs, and self processing. *Behaviour Research and Therapy, 39*, 1–11.
- Wilson, J. K., & Rapee, R. M. (2006). Self-concept certainty in social phobia. *Behaviour Research and Therapy, 44*, 113–136.
- Woody, S. R., Chambless, D. L., & Glass, C. R. (1997). Self-focused attention in the treatment of social phobia. *Behaviour Research and Therapy, 35*, 117–129.

This research was undertaken, in part, thanks to funding from the Canada Research Chairs Program. Special thanks to Jonathan Oakman, Elizabeth Orr, Susanna Gehring Reimer, Meagan MacKenzie, Vanessa Huyder, and two anonymous reviewers for their helpful comments on earlier versions of this manuscript.

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Received: October 23, 2007

Accepted: April 2, 2008