Chapter 8

A MINDFULNESS AND ACCEPTANCE-BASED PERSPECTIVE ON SOCIAL ANXIETY DISORDER

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Social anxiety disorder (SAD), also known as social phobia, is a common and often debilitating anxiety disorder. The cardinal features of SAD are anxiety in and avoidance of situations involving interpersonal behavior, social performance, or both. Pathological social anxiety is characterized by extreme concerns over humiliation, embarrassment, or similar emotional consequences resulting from fear of negative evaluation by others. The disorder is associated with serious impairment in multiple areas of functioning, including romantic and nonromantic relationships, academic functioning, and occupational functioning (e.g., Davidson, Hughes, George, & Blazer, 1993; Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992). SAD is also associated with increased risk of comorbid psychopathology, especially depression other anxiety disorders and substance abuse (e.g., Magee, Eaton, Wittchen, McGonagle, & Kessler, 1996; Schneier et al., 1992).

Although research on pathological social anxiety and avoidance extends back several decades, the condition was only recognized as a distinct disorder upon publication of the third edition of the *Diagnostic and statistical manual of mental disorders* (*DSM-III*) in 1980 (American Psychiatric Association, 1980). The *DSM-III* originally conceptualized SAD as fear and

avoidance of one or more discrete social situations such as public speaking, eating in front of others, or using public toilets. Research quickly demonstrated, however, that many individuals with the condition fear and avoid multiple social situations, and the revision of the *DSM-III* published in 1987 distinguished a "generalized" subtype, in which anxiety extends to most social situations. The distinction between discrete and generalized subtypes of SAD continues to be made in the most recent edition of the *DSM* (American Psychiatric Association, 2000).

Research on SAD has increased dramatically over the past two decades. The National Comorbidity Survey found that SAD is the third most common mental disorder in the United States, with lifetime prevalence estimates of 13.3% (Kessler et al., 1994). Although many individuals with the disorder, especially those with the generalized subtype, report having been shy and socially anxious for as long as they can remember, the onset of SAD as a clinical disorder appears to follow a bimodal pattern, with one peak in early childhood and another in mid-adolescence (Dalrymple, Herbert, & Gaudiano, 2004; Juster & Heimberg, 1995; Stein, Chavira, & Jang, 2001). Despite its high prevalence, the disorder often goes unrecognized by professionals, and therefore untreated (Herbert, Crittenden, & Dalrymple, 2004; Wittchen, Stein, & Kessler, 1999). Without intervention, SAD tends to follow a chronic, unremitting course. The high prevalence of SAD, along with the high levels of distress and impairment associated with it, makes the disorder a major public health concern (Kashdan & Herbert, 2001; Lang & Stein, 2001).

The etiology of SAD remains unknown, although data suggest a role for both genetic and environmental factors. Family studies have revealed robust familial linkages for the disorder (e.g., Fyer, Mannuzza, Chapman, Liebowitz, & Klein, 1993; Mannuzza, Schneier, Chapman, Liebowitz, & Klein, 1995; Reich & Yates, 1988). The temperamental style of behavioral inhibition in early childhood, characterized by shyness and restraint, avoidance, and distress in the face of novel situations, has been found to be associated with the subsequent development of SAD in adolescence (Schwartz, Snidman, & Kagan, 1999). Retrospective reports indicate that individuals with SAD perceive their parents to have been socially isolated and to have encouraged excessive concerns about evaluation by others as well as social isolation. Approximately half of individuals with SAD recall a traumatic event that they believe caused or contributed to their condition (Stemberger, Turner, Beidel, & Calhoun, 1995). Further, cognitive models propose that SAD results from dysfunctional cognitive content as well as biased information processing. Although it is generally accepted that SAD results from the interplay of both genetic and environmental factors, the specific nature of these interactions has not been established.

PSYCHOTHERAPY FOR SAD

Behavior Therapy

There is little evidence to support traditional models of psychotherapy (e.g., psychodynamic or supportive psychotherapy) for SAD, although relatively little research has examined such approaches. Most contemporary psychotherapies for SAD are behaviorally oriented, and share the component of systematic exposure to anxiety-provoking stimuli. Exposure therapy can be conducted in vivo, through behavioral stimulations, and in imagery. In each case, the therapist and client together develop a hierarchy of phobic situations, and then systematically expose the client to increasingly anxiety-provoking stimuli. For example, an initial exposure for a client who fears and avoids conversations might be to introduce herself to a stranger. She might subsequently initiate a conversation and maintain it for 1 min. Later exposures might entail initiating a conversation with a group of individuals at a dinner party and maintaining it for at least 5 min. The difficulty of the exposure exercises is gradually increased over a number of treatment sessions. Several meta-analyses have found exposure to be effective in the treatment of SAD (Fedoroff & Taylor, 2001; Feske & Chambless, 1995; Taylor, 1996).

A unique feature of exposure therapy for SAD is the emphasis placed on simulated exposure, often referred to as role-play exercises. A simulation of many social situations, including both interpersonal situations such as conversations or dating as well as performance situations such as public speaking, can be readily created in the clinic. Initially the therapist can play the role of various other people in such simulations, and eventually other staff, including both professional staff (e.g., other therapists) and lay staff (e.g., administrative support persons), can be incorporated. There are several advantages of simulated exposure, including the ability to target a wide range of situations and the high level of control they afford the clinician to titrate the level of difficulty. Moreover, clients are often surprised at how realistic such stimulations appear once they are underway. Simulated exposures conducted in the therapist's office can be followed up with therapist-guided in vivo exposures in the community, as well as homework assignments involving further in vivo exposure.

Another commonly used behavioral treatment strategy is social skills training (SST). Research demonstrates that SAD is associated with problems with social performance, although the degree to which such impairments reflect actual skills deficits or the pernicious effects of anxiety remains unknown (Heimberg & Becker, 2002; Herbert, 1995; Norton & Hope, 2001). In any case, like exposure, SST has been shown to be an

effective treatment for SAD (Fedoroff & Taylor, 2001; Taylor, 1996). After an individualized assessment to highlight specific areas of problematic social behavior, the therapist targets each area by modeling, conducting role-played practice, and providing veridical feedback. Role plays conducted for the purpose of SST are typically brief initially, lasting anywhere from a few seconds to a minute, and may be repeated several times. This permits the clinician to focus on one or two specific skills at a time. As increasingly complex skills are targeted, the duration of role plays may be extended to several minutes, affording the opportunity for simulated exposure as well. Although SST has been shown to be an effective treatment for SAD, it is not clear if the beneficial effects of SST on social anxiety and behavioral performance are due to skill acquisition per se or to the effects of exposure provided by the role plays.

A multicomponent treatment that includes SST is social effectiveness therapy (SET; Turner, Beidel, Cooley, Woody, & Messer, 1994). In addition to targeting social skills, SET includes psychoeducation, in vivo and/or imaginal exposure exercises, and programmed practice through homework. Although there has been limited research on SET, initial results are promising (Turner et al., 1994; Turner, Beidel, & Cooley-Quille, 1995).

Cognitive Behavior Therapy

The most popular contemporary treatments for SAD are variations of cognitive–behavioral therapy (CBT), which are based on cognitive models of the disorder, discussed further below. In addition to incorporating systematic exposure, CBT targets exaggerated negative thoughts and beliefs about the degree of threat associated with social situations, the adequacy of one's social performance, and the actual consequences of social *faux pas* and other negative outcomes. Therapy aims to modify these cognitions using a variety of techniques. For example, cognitive restructuring involves identifying "automatic thoughts" evoked by feared social situations, identifying the characteristic errors and biases in such thoughts, and then systematically correcting these errors.

The most popular and widely researched form of CBT for SAD is cognitive–behavioral group therapy (CBGT) developed by Heimberg and colleagues (Heimberg & Becker, 2002; Heimberg et al., 1990). A unique feature of CBGT is that cognitive restructuring is conducted within the context of simulated exposure exercises, such that the two components are fully integrated. The primary goal of simulated exposure exercises is not habituation to anxiety-provoking situations but rather to present experiential evidence to counter-specific negatively biased cognitions. For example, a

client who believes that his mind will "go blank" and will therefore be unable to engage in conversation might be asked to have a conversation in the context of a role-play exercise. The therapist then counts the number of verbalizations he makes during the exercise, and presents these data to him following the conversation to illustrate the inaccuracy of his prediction about his performance. Regular homework in the form of self-monitoring and correcting biased cognitions, as well as practicing previously avoided behaviors, is assigned following each session.

A substantial literature has supported the effectiveness of CBGT (e.g., Gelernter et al., 1991; Heimberg, Salzman, Holt, & Blendell, 1993; Hope, Herbert, & White, 1995; Otto et al., 2000). Moreover, several variations of the program have recently been evaluated. Several studies have found that individual treatment is as effective as the group format (e.g., Gould, Buckminster, Pollack, Otto, & Yap, 1997; Herbert, Rheingold, Gaudiano, & Myers, 2004), and one study found that individual treatment may be even more effective (Stangier, Heidenreich, Peitz, Lauterbach, & Clark, 2003). Brief (e.g., 6-week) versions of individual CBT based on the CBGT model have been shown to be effective (Herbert, Rheingold, & Goldstein, 2002). A recent study found that the effects of CBGT were augmented by the inclusion of SST (Herbert et al., in press; see also Franklin, Feeny, Abramowitz, Zoellner, & Bux, 2001). Despite the overall effectiveness for CBGT and its variations, the specific mechanisms responsible for these effects remain unclear.

A similar CBT program for SAD has been developed by Clark (2001). Clark argues that exposing patients to social situations, even in the context of cognitive restructuring, may have limited impact on anxiety reduction and meaningful cognitive change without explicit efforts to shift the focus of attention outward and to eliminate the use of safety behaviors (e.g., not speaking much or scripting speech; wearing a turtleneck sweater to hide sweating; avoiding eye contact in conversations). Like standard CBT treatments, exposure exercises and cognitive restructuring techniques are conducted to help clients test negative predictions and beliefs. However, a unique feature of the Clark program is that feared situations are role played under two conditions, once while engaging in self-focused attention and employing safety behaviors and then again while focusing attention outward and without using safety behaviors. Therapy encourages clients to shift to an external focus of attention and to drop safety behaviors during social interactions, including simulated interactions in session as well as in vivo interactions through homework assignments. In addition, videotaped feedback is used to provide realistic information about how the client actually appears to others.

Limits to Efficacy of Current Treatment Approaches

Although traditional behavioral and cognitive–behavioral programs are reasonably effective for SAD, there remains much room for improvement. A substantial number of patients fail to respond to these therapies. Moreover, the majority of those who do respond continue to experience residual symptoms and associated impairment. For example, Turner, Beidel, and Wolff (1994) found that only 33% of those with the generalized subtype SAD achieved at least moderate end-state functioning following a course of behavior therapy. Similarly, Hope et al. (1995) found that only 18% of patients with generalized SAD were rated by independent evaluators as fully remitted following a course of CBT. Brown, Heimberg, and Juster (1995) likewise found that only 44% of patients with generalized SAD were classified as treatment responders following CBT.

Augmentation with antidepressant medication has not been found to result in meaningful increases in overall response rates, especially in the long term (Heimberg, 2002; Huppert, Roth, Keefe, Davidson, & Foa, 2002). In fact, Haug et al. (2003) found that patients with SAD who received combined treatment (sertraline plus exposure therapy) demonstrated poorer long-term outcome than those who received exposure therapy alone. Thus, there is a need for treatment innovations to target nonresponders to standard therapy and to enhance the magnitude of therapeutic effects among treatment responders.

A promising variation to standard CBT are programs that highlight mindfulness and acceptance strategies. Such programs have recently attracted considerable attention in the treatment of a wide range of conditions, including various mood and anxiety disorders, psychotic disorders, and personality disorders, among others. Following a discussion of theoretical conceptualizations of SAD, we will return to the question of mindfulness and acceptance-based interventions for the disorder.

COGNITIVE MODELS OF SAD

Given the centrality of negative cognitions in SAD, it is not surprising that popular models of the disorder focus primarily on cognitive–verbal processes. There is broad consensus that such processes are critical to the development and maintenance of SAD, although the specific mechanisms are not yet clear. Cognitive theories emphasize the role of negative cognitions and hold that information-processing biases play a central role in the etiology and maintenance of SAD. Current cognitive theories are based on the general model of clinical anxiety developed by Beck, Emery, and Greenberg (1985), which proposes that dysfunctional cognitions that

operate largely beyond conscious awareness influence information processing by biasing attention toward stimuli congruent with the cognitions. These dysfunctional cognitions result in vulnerability to anxiety. Individuals with SAD perceive themselves as vulnerable to social threat, leading to information-processing biases that reinforce beliefs about the threat.

Clark and Wells (1995) and Rapee and Heimberg (1997) have developed cognitive models of SAD derived largely from the Beck et al. (1985) model. Both Clark and Wells and Rapee and Heimberg highlight attentional biases that occur before, during, and after a social situation, the influence of past memories of social events, the role of focus on the self, and the tendency to perceive threat in the world. However, there are key differences with regard to why anxiety is generated. Clark and Wells suggest that individuals with SAD develop dysfunctional assumptions about themselves and social situations, which lead them to appraise social situations as dangerous. The appraisal then generates anxiety, leading individuals with SAD to become self-focused (i.e., attention is shifted away from the actual situation and inward on negative thoughts and feelings). Faulty inferences made about how one appears to others and processing of external cues biased in favor of negatively interpreting others' responses both contribute to the vicious cycle that generates and maintains anxiety. According to Rapee and Heimberg, however, anxiety is induced and maintained by the continued comparison and discrepancy between the expectation of how one should be performing with the ongoing mental representation of one's performance. Rappe and Heimberg argue that individuals with SAD form mental representations of their external appearance and behavior, and make faulty predictions based on past experiences and perceived internal and external cues about how others will perceive them. Anxiety is influenced by the perception of success or failure, which depends upon the degree of match between the two mental representations.

In support of cognitive models of SAD, a growing body of research has demonstrated various information processing biases associated with the disorder, including biases involving attention, interpretation of ambiguous information, and possibly memory. With regard to attention, individuals diagnosed with SAD have shown to score higher on measures of public self-consciousness (i.e., attention to aspects of the self that can be observed by others; Bruch & Heimberg, 1994; Saboonchi, Lundh, & Ost 1999). Individuals high in social anxiety report higher levels of self-focused attention during social situations (Mellings & Alden, 2000), and exhibit enhanced ability to detect negative external social cues, such as negative audience behaviors (e.g., yawning, looking at watch) rather than positive behaviors (e.g., smiling, nodding; Veljaca & Rapee, 1998). There is some evidence to suggest that socially anxious individuals exhibit preferential memory for

threat-related information, including poorer memory for details from a recent social interaction (Daly, Vangelisti, & Lawrence, 1989; Kimble & Zehr, 1982; Mellings & Alden, 2000) and selective retrieval of negative public self-referent words when anticipating public speaking (Mansell & Clark, 1999). However, for nonclinical socially anxious individuals the bias only occurs if a socially anxious state is evoked at the time of retrieval (Heinrichs & Hofmann, 2001). Individuals with SAD also form excessively negative appraisals of social situations. Those with SAD have a tendency to interpret ambiguous social events negatively; this negative interpretation is specific to the performance of the socially anxious individual himself or herself, and occurs only during social situations (Amir, Foa, & Coles, 1998; Stopa & Clark, 2000). Highly socially anxious individuals also use internal information (e.g., physiological arousal) to make markedly negative inferences about how they appear to others (e.g., Mellings & Alden, 2000; Wells & Papageorgiou, 2001). In comparison to independent raters, socially anxious individuals underestimate how well they come across to others (Stopa & Clark, 1993).

Although the research reviewed above is generally consistent with cognitive models of SAD, it is important to note that the causal role of cognitive variables in the etiology or maintenance of the disorder has not been established. It is possible that biased information processing is a concomitant or result of social anxiety, rather than a cause. In addition, the implication of extant cognitive models of SAD is that effective intervention requires correcting distorted cognitive content and processes. We now turn to an alternative perspective that may provide new insights in understanding and treating SAD.

MINDFULNESS

Modern descriptions of mindfulness in clinical psychology are derived from traditional Buddhist conceptualizations. Mindfulness in the Buddhist tradition has been referred to as "bare attention," or a nondiscursive registering of events without reaction or mental evaluation. The emphasis is on the *process* of sustained attention rather than the *content* to what is attended (Thera, 1972). Among the descriptions in Western psychology, the most frequently cited definition of mindfulness is provided by Kabat-Zinn (1994) as "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (p. 4). Reflected in Kabat-Zinn's definition and consistent with most other descriptions of mindfulness are two central components: present-moment awareness and nonjudgmental acceptance. Awareness in this context refers to the continuous monitoring

of both one's inner experience and external perceptions (Deikman, 1996). This awareness focuses on the ongoing stream of experience in the present, rather than attention to past or future events (Roemer & Orsillo, 2003). The second component of mindfulness concerns the psychological stance in which present-moment awareness is conducted: nonjudgmentally, with an attitude of acceptance and openness to one's experience. Acceptance has been defined as "experiencing events fully and without defense, as they are" (Hayes, 1994, p. 30), during which one is fully open to the experience of the present moment without evaluating the truth or value of that experience (Roemer & Orsillo, 2003). Acceptance implies refraining from attempts to change, avoid, or escape from one's experience, regardless of its specific content.

Bishop et al. (2004) recently proposed a similar operational definition of mindfulness that focuses on two components: sustained attention to present experience and an attitude of openness, curiosity, and acceptance. Although a useful advance over earlier attempts to define the construct, one problem with their definition is that any self-regulation of attention is inconsistent with an attitude of thoroughgoing acceptance (Brown & Ryan, 2004). That is, one cannot be fully open and accepting of the full range of psychological experience if one is simultaneously attempting to direct attention in any particular way (e.g., away from external stimuli, as in certain forms of concentrative meditation).

Although most descriptions of mindfulness reflect the components of awareness and nonjudgmental acceptance, the distinction between the two is generally not emphasized. In fact, Brown and Ryan (2003, 2004) argue on both theoretical and empirical grounds that the acceptance component of mindfulness is redundant with the awareness component. It is often assumed that increased present-focused awareness will necessarily occur with an attitude of enhanced acceptance, and conversely that enhancing one's stance of nonjudgmental acceptance will necessarily lead to increased awareness. However, the degree to which changes in either component tend to affect changes in the other is an open question, and it should not be assumed that the two components are inextricably linked. For example, high levels of awareness need not be accompanied by high levels of acceptance. Research demonstrates that panic disorder is associated with increased awareness of internal physiological cues (e.g., Ehlers & Breuer, 1992, 1996), but this awareness is certainly not accepted nonjudgmentally by the panicker; quite the contrary in fact. Conversely, one can adopt a highly accepting perspective without necessarily being highly aware of ongoing experience. For example, an athlete focusing on performing an event might learn to decrease attention to both internal sensations such as pain and external distractions such as the audience's cheering, yet adopt

an accepting attitude to distractions when they do arise in awareness. Csikszentmihalyi (1990) describes a psychological state he terms "flow," in which attention is so highly focused on a particular task that one's experience of both the internal and external environment is temporarily attenuated. It is possible that such a state is associated with relatively low levels of present-moment awareness of the internal and external environments, yet relatively high levels of acceptance of whatever experience does enter consciousness. We therefore propose that concept of mindfulness be conceptualized as consisting of two factors: (a) enhanced awareness of the full range of present experience and (b) an attitude of nonjudgmental acceptance of that experience. As will become clear below, the distinction between these components becomes important in conceptualizing SAD and its treatment from a mindfulness perspective.

A large literature supports the beneficial effects of mindfulness. For example, Kabat-Zinn and colleagues (1992) found a mindfulness meditation-based stress reduction program to be effective for medical outpatients with generalized anxiety disorder (GAD) or panic disorder; Miller, Fletcher, and Kabat-Zinn (1995) found these results to be maintained at a 3-year follow-up. Orsillo, Roemer, and Barlow (2003) report pilot data suggesting the value of incorporating mindfulness techniques into an existing group CBT program for GAD. Davidson and colleagues (2003) report that mindfulness meditation produces brain activation in a region typically associated with positive affect, and beneficial effects of immune functioning. In addition, Carlson, Speca, Patel, and Goodey (2003) found significant improvements in quality of life, symptoms of stress, and sleep quality in breast and prostate cancer patients after participation in a mindfulness-based stress reduction program.

Despite these encouraging results, the research to date has generally not clearly distinguished the two constituents of the mindfulness concept. It is therefore unclear if the beneficial effects of increased mindfulness are due to increased awareness, increased acceptance, or both. Moreover, confounding the two components of mindfulness may obscure their individual effects in theoretical models of psychopathology. We now turn to a model of SAD in which awareness and acceptance each play a unique role.

AN ACCEPTANCE-BASED MODEL OF SAD

As discussed above, standard cognitive models of SAD focus on distorted or dysfunctional cognitive content (e.g., negative thoughts about one's social performance) and biased information processing (e.g., attentional, memory, and judgmental biases). Consideration of the construct of

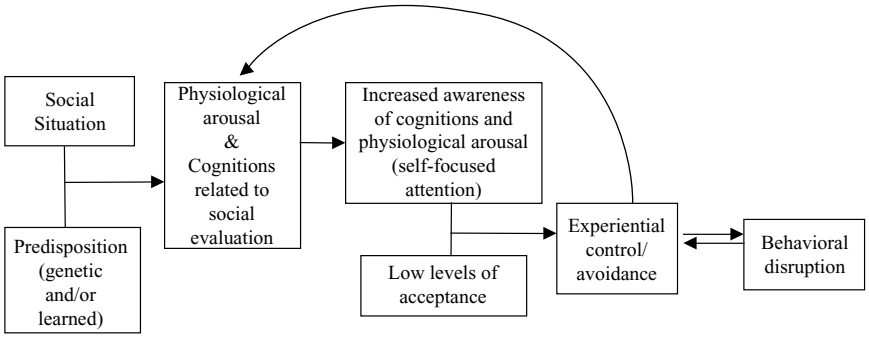

FIGURE 1. An Acceptance-Based Model of Social Anxiety Disorder

mindfulness and its constituent components yields variations to these models that suggest additional theoretical mechanisms and alternative intervention strategies.

Our model of SAD is illustrated in Figure 1. First, phobic social situations, in the context of a predisposition toward social anxiety, produce both physiological arousal and negative thoughts related to social evaluation. There are several noteworthy points to this first step. First, both a phobic stimulus and a predisposition toward social anxiety are required to produce anxiety-related thoughts and feelings. Without the predisposition toward social anxiety, a social situation will produce minimal arousal, and in the absence of a specific phobic situation the predisposition is not operative. Second, we use the term "social situation" broadly to include any stimulus, internal or external, that functions to trigger anxiety. For example, thoughts of an upcoming social situation might serve to trigger anxiety in a vulnerable individual. Third, both the predisposition to anxiety and the specific phobic stimuli are conceptualized as continuous variables rather than as discrete categories. That is, both constructs are assumed to vary quantitatively across individuals. Hence, the level of cognitive and physiological arousal experienced by a given individual will depend on his or her quantitative levels of each of these factors. Fourth, the distal cause of the predisposition may be genetically based, learned, or (most likely) a combination of both. As discussed above, there are data consistent with genetic influences on the development of social anxiety (e.g., family studies, temperament), as well as environmental factors (e.g., retrospective reports of parenting style). In either case, we are far from being able to prevent the development of the disorder through modification of either process. As it is not clear how (or even if) one can change one's predisposition to social anxiety, and given the ubiquity of social situations, the first step in the model does not provide for direct targets for intervention.

As anxiety-related thoughts and feelings are elicited, they in turn trigger an increase in internal awareness, and a corresponding decrease in awareness of external cues. Although triggered automatically by increased arousal, this self-focused attention is nevertheless theoretically distinct. The nonjudgmental acceptance component is critical at this stage, because the effects of increased awareness of internal arousal will depend upon the individual's level of acceptance. It is worth noting that acceptance in this context is hypothesized to represent a quasistable trait, yet one that can nevertheless be modified, as discussed below. In the context of a high level of nonjudgmental acceptance, one will simply notice the cognitive and physiological arousal without attempting to control, escape from, or avoid it. The impact on behavioral performance will therefore be minimal. On the other hand, in the context of low acceptance, one will reflexively engage in a variety of experiential control strategies designed to alter the form and/or frequency of the thoughts and feelings. For example, one might attempt to "talk back" to or rationalize one's thoughts, or try to suppress or distract oneself from unpleasant feelings.

Although such experiential control strategies may sometimes work at least temporarily, they often fail. For example, thought suppression has been found to be associated with heightened pain experience (Sullivan, Rouse, Bishop, & Johnston, 1997), increased anxiety (Koster, Rassin, Crombez, Naring, 2003), poorer ratings of quality of sleep and longer estimates of sleep-onset latency when thoughts are suppressed during the presleep period (Harvey, 2003), and increases in the reinforcing effect of alcohol when urges to drink were suppressed by heavy drinkers (Palfai, Monti, Colby, & Rohsenow, 1997). In addition, although Belloch, Morillo, and Gimenez (2004) found that suppression of intrusive or neutral thoughts had no effect on their frequency, their results suggested that suppression efforts may nevertheless interfere with habituation to the thought, whereas a lack of control leads to a marked decrease in thought frequency. Fehm and Margraf (2002) report data suggesting that thought suppression may be particularly relevant to SAD. Relative to agoraphobics and nonanxious controls, persons with SAD demonstrated impaired ability to suppress not only socially relevant thoughts, but thoughts related to other topics as well. Other research suggests that attempts to control feelings may be equally problematic. For example, Strahan (2003) found that high levels of emotional control at baseline predicted poorer academic performance over a year later.

Furthermore, the greater the perceived cost of failing to control one's internal experiences, the less successful such efforts are likely to be. An experiential exercise known as the polygraph metaphor nicely illustrates this point (Hayes, Strosahl, & Wilson, 1999). Imagine being connected to the

world's best polygraph machine, which provides an ongoing index in real time of your level of physiological arousal. Your task is to stay very relaxed, and your ongoing level of relaxation will be recorded by the machine. In order to provide extra incentive to stay relaxed, imagine that a shotgun is mounted on a table next to you and aimed at your head. When the machine is activated, nothing will happen as long as you remain perfectly calm. But any increase in arousal will trigger the gun to go off, killing you instantly. Most clients, and especially those with anxiety disorders, readily grasp the paradoxical implications of this metaphor: The greater the cost associated with controlling one's internal experience the harder it becomes to do so, and in fact the greater the likelihood that the experience will become even more salient and disruptive.

Returning to Figure 1, experiential control efforts therefore tend to backfire, leading to even further increases in anxiety-related arousal. This establishes a vicious cycle of increased arousal, increased awareness, and further efforts at experiential control, including escape behaviors. Behavioral disruption occurs as one becomes preoccupied with controlling unpleasant thoughts and feelings. This disruption can take many forms, including avoidance of anxiety-provoking situations, impaired performance in social or performance situations, and a constriction of one's behavioral repertoire. This behavioral disruption in turn leads to further efforts at experiential control. For example, an individual who struggles to control feelings of nervousness in a conversation with an attractive potential dating partner may have difficulty focusing on the conversation, and may stumble over his words. In an effort to make the conversation flow more smoothly, he works even harder to control his nervousness, thereby setting up a vicious cycle.

IMPLICATIONS FOR INTERVENTION

There are several implications of this model for intervention. First, in principle one could arrest the vicious cycle by targeting either of the two components of mindfulness: awareness or acceptance. According to the model, a *decrease* in internal awareness would theoretically result in decreased experiential control, especially since self-focused attention has been shown to lead to increases in social anxiety rather than task-focused attention (Boegels & Lamers, 2002). In fact, traditional CBT, especially as practiced by Clark and colleagues, may owe its effectiveness in part to this mechanism. Strategies designed to decrease self-focused attention and to increase externally focused attention may serve to decrease efforts to control anxiety-related arousal, thereby resulting in less behavioral disruption

(e.g., Wells & Papageorgiou, 1998). The difficulty with this strategy is that direct efforts to decrease attention toward internal experiences run the risk of paradoxically increasing attention to those very experiences in some individuals.

A potentially more powerful strategy would be to focus on increasing levels of nonjudgmental acceptance of one's experience. If one is able to embrace fully one's experience without defense, there is no need to engage in control efforts, and *all* of one's efforts can therefore be directed to the task at hand, rather than struggling to control thoughts and feelings. By adopting a stance of nonjudgmental acceptance, the content of one's experience becomes irrelevant; one is willing to experience whatever occurs. From a mindfulness perspective, an advantage of focusing on changing levels of nonjudgmental acceptance, rather than awareness, is that clients can more directly learn to increase levels of acceptance. In contrast, even if it were possible to control fully the target or content of one's awareness, efforts to do so would run the risk of amplifying the very experiences the client wishes to avoid.

Although the proposed mechanisms of traditional cognitive-based treatment approaches are theoretically different from mindfulness-based approaches, both may share some common mechanisms. In the case of depression, for example, there is evidence that the effects of both traditional CBT and mindfulness-based CBT are mediated by increases in "metacognitive awareness," or holding one's thoughts and feelings as distinct from the self (Teasdale et al., 2001, 2002). It should be noted, however, that the actual degree of acceptance in measures of metacognitive awareness is not clear. As used by Teasdale et al., metacognitive awareness refers to the process of "decentering" and "disidentification" with one's thoughts so that they are distinguished from the self. Although this distance from one's internal experience may foster an attitude of nonjudgmental acceptance, the degree of acceptance per se is not explicitly measured and is therefore unknown.

Although traditional CBT may indeed result in increases in metacognitive awareness when it is effective, it remains the case that the basic therapeutic stance is fundamentally at odds with an acceptance orientation. Regardless of the differences between the specific interventions, all standard cognitive therapy programs for SAD propose that therapeutic change is mediated by modification of biased or dysfunctional cognitions. That is, standard CBT holds that changes in the content and/or frequency of thoughts is what produces changes in affect, physiological arousal, and behavior. Thus, performance is only enhanced after anxiety reduction. In contrast, from an acceptance perspective, the specific content or frequency of thoughts is essentially irrelevant. Instead, how one relates to one's private events is more important, and adopting a stance of nonjudgmental

acceptance allows one to be willing to experience whatever occurs regardless of its emotional valence. One can have physiological arousal, negative social–evaluative thoughts, or both, and nevertheless continue to perform effectively. Given that experiential control strategies often appear to backfire, this suggests that directly targeting acceptance may prove to be an especially powerful intervention strategy.

ACCEPTANCE AND COMMITMENT THERAPY

One therapeutic perspective that highlights the importance of experiential acceptance and that has recently attracted considerable attention is acceptance and commitment therapy (ACT), developed by Steven Hayes and colleagues (Hayes et al., 1999). ACT is based on a behavioral theory of language known as relational frame theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001), and is situated within the philosophical perspective known as functional contextualism. RFT proposes that much psychological distress is a byproduct of natural language processes, which encourage futile efforts to control private experiences. ACT utilizes a variety of experiential exercises and metaphors, integrated with standard behavioral interventions, to foster nonjudgmental acceptance of one's psychological experience. This experiential acceptance is not considered an end in and of itself, but rather is viewed as a tool explicitly linked to promoting action toward personally relevant goals. These goals are in turn explicated through the process of examining one's personal values across major life domains. In fact, ACT is more explicit than most other mindfulness and acceptance-oriented psychotherapies in linking experiential acceptance directly to behavioral progress toward chosen goals and values.

The ACT model has been applied to a variety of forms of psychopathology, including the anxiety disorders (Orsillo, Roemer, Block-Lerner, LeJeune, & Herbert, 2004). To date, no controlled studies have evaluated the efficacy of ACT with generalized SAD. One small study evaluated brief public speaking workshops based on ACT versus CBT, relative to a no-treatment comparison group, for college students with fear of public speaking (Block, 2003). Both treatments resulted in significant improvement on measures of anxiety and avoidance relative to the control condition. There were few differences between treatments, although the ACT condition showed greater decreases in behavioral avoidance during public speaking.

Herbert and Dalrymple (2004) developed a detailed treatment manual of ACT for generalized SAD, and a pilot study based on this program is currently underway. This program builds on earlier treatment protocols that utilize cognitive therapy integrated with simulated exposure (e.g.,

Heimberg & Becker, 2002), although cognitive therapy techniques, particularly cognitive restructuring, are not conducted. Following thorough assessment and construction of a hierarchy of feared social situations, the initial stage of treatment focuses on exploring the various strategies the client has attempted to utilize to control her anxiety. Strategies such as deep breathing, relaxation, attempting to "talk through" negative thoughts, and drinking alcohol prior to or during social events are commonly reported; in fact, clients typically list anxiety reduction as their primary goal of treatment. Inevitably such strategies have not been successful, or the client would not be presenting for treatment. This exploration leads to a discussion of the paradoxical nature of experiential control efforts. Various exercises and metaphors are used to demonstrate the futility of efforts to control one's anxiety, such as the polygraph metaphor described above.

The next step involves the introduction of the idea of willingness to experience whatever thoughts and feelings arise as an alternative to experiential control. The goal of increased willingness is discussed, using the two-scale metaphor (Hayes et al., 1999). In this metaphor, anxiety on the one hand and willingness to experience private events (including feelings of anxiety) on the other are conceptualized as two distinct scales. The client has focused her efforts exclusively on the anxiety scale, monitoring it closely and attempting to keep anxiety low. Yet her experience has demonstrated that such efforts are futile, at least in the long term. By shifting the focus to the willingness scale, which she actually can influence, the anxiety scale becomes increasingly irrelevant. At this stage, and continuing throughout the remainder of the program, stimulated and in vivo exposure to phobic social situations is conducted. The goal of the exposure exercises, however, is explicitly *not* to reduce anxiety, but rather to foster acceptance and willingness while simultaneously practicing social behaviors that are consistent with one's goals (e.g., initiating and maintaining conversations, asking someone out on a date, being assertive, public speaking). During role-play exercises, the therapist periodically "checks in" with the client, reminding her simply to notice what internal experiences are occurring without attempting to change them, and asking her to provide ratings of her willingness. Although anxiety reduction may occur and in fact frequently does, the client is repeatedly warned against making anxiety reduction the goal or becoming too attached to the experience of low anxiety, as doing so is tantamount to abandoning willingness in favor of experiential control. One cannot be fully accepting of one's psychological experience while simultaneously engaged in experiential control efforts, no matter how indirect or subtle, to modify that very experience. This emphasis reflects another unique feature of ACT: its radical perspective on acceptance. Many current applications of mindfulness in psychotherapy

claim to promote nonjudgmental acceptance of psychological experience on the one hand while suggesting that such acceptance will lead to the goal of reducing or eliminating distressing thoughts and feelings on the other. Upon reflection, the contradiction is obvious. One cannot be fully accepting of one's psychological experience while simultaneously engaged in experiential control efforts, no matter how indirect or subtle, to modify that very experience. Consistent with our model of SAD (Figure 1), the danger with any attempt to control, avoid, or escape from internal experience is that such efforts can lead to behavioral disruption as well as further increases in anxiety.

Various exercises are utilized to enhance experiential willingness during both simulated exposure exercises and in vivo exposures conducted in the clinic and as homework assignments. The difficulty of the exposures is gradually increased throughout the course of therapy as the client progresses up his fear hierarchy, and homework assignments are linked to exposure exercises conducted in the session. A final stage of therapy concerns values clarification and goal-setting. ACT conceptualizes values as general life directions, analogous to points on a compass, whereas goals are specific, attainable mileposts along the way toward a valued direction. Both values and goals are choices made by the client, as the ACT therapist is careful to avoid coercing or even advocating for any specific value, and this work serves two useful purposes. First, it encourages the client to take full ownership of his values and goals. Second, it highlights goals that might not otherwise be obvious, and that may not in fact relate directly to social anxiety (e.g., increasing religious or spiritual practices, increasing physical fitness).

Although data collection is currently underway, our initial experience with this program has been quite encouraging. Our experience suggests that this program appears to be especially useful with difficult, entrenched, or treatment refractory cases, although controlled research is needed to evaluate these observations.

CONCLUSIONS AND FUTURE DIRECTIONS

Labeled "the neglected anxiety disorder" less than 20 years ago (Liebowitz, Gorman, Fyer, & Klein, 1985), the past two decades have witnessed a dramatic increase in research on the etiology, phenomenology, and treatment of SAD. This research has caused a shift in the conceptualization of the disorder from a relatively minor phobia of a specific social situation to a chronic, unremitting, and often debilitating disorder that typically affects multiple domains of functioning. The most popular current models of the

disorder emphasize biases in information processing. Research has been largely consistent with hypotheses derived from these models, finding that individuals with SAD exhibit specific biases in attention, memory, and judgment. Nevertheless, the causal status of these biases with respect to SAD has not been demonstrated. In addition, current treatment approaches based on these models, although generally effective, leave considerable room for improvement.

We suggest that the concept of mindfulness, properly deconstructed, holds considerable promise in both the understanding and treatment of SAD. The nonjudgmental acceptance component of mindfulness may be especially important in understanding the maintenance of the disorder, and in treatments designed to increase experiential acceptance as a tool for promoting action toward chosen goals, and life values have been developed and are currently being evaluated. The importance of methodologically sound research in this area cannot be overstated. Although we clearly believe that the concept of mindfulness has considerable utility, the rapid increase in interest in the concept runs the risk of transforming it into yet another psychotherapy fad, only to be subsequently dismissed as the next innovation comes along. To prevent this fate, in addition to ongoing clinical development, the concept of mindfulness should be subjected to critical analysis, and strong tests of resulting hypotheses should be conducted. Our hope is that this chapter may serve as an impetus to such research.

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