Chapter 18

A Cognitive Perspective on Social Phobia

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The persistence of social phobia is a puzzle. Individuals with other phobias such as claustrophobia, height phobia, and small animal phobias are able to success-fully avoid most encounters with their phobic object and it is generally thought

that this avoidance is the main reason for the persistence of their fears. In contrast, the nature of modern society is such that patients with social phobia often have to enter feared social situations. This distinction is recognized in recent versions of the *Diagnostic and Statistical Manual for Mental Disorders* (APA, 1987, 1994) where avoidance is necessary for the diagnosis of all phobias except for social phobia where it is specified that the phobia situation must be either "avoided *or* endured with intense distress" (APA, 1994, p. 417; emphasis added). Why does social phobia persist despite regular exposure to feared social situations? The present chapter provides an overview of a recent cognitive model of social phobia (Clark & Wells, 1995; Clark, 1997; Wells, 1997, 1998; Wells & Clark, 1997) that was specifically developed to explain such persistence.[1] Following a description of the model, research testing key aspects of the model is summarized, a treatment programme which aims to reverse the maintenance processes specified in the model is outlined, and preliminary evaluations of the treatment and its components are reviewed.

THE COGNITIVE MODEL

For the purpose of exposition, the model is divided into two parts. The first part concerns what happens when a social phobic enters a feared social situation. The second concerns what happens prior to entering, and after leaving a social situation.

Processing in Social Situations

Figure 18.1 illustrates the processes that Clark and Wells suggest occur when a social phobic enters a feared social situation. On the basis of early experience, patients with social phobia develop a series of assumptions about themselves and their social world. The assumptions can be divided into three categories:

- *Excessively high standards for social performance*, e.g., "I must not show any signs of weakness", "I must always sound intelligent and fluent", "I should only speak when other people pause", "I should always have something interesting to say".
- *Conditional beliefs concerning the consequences of performing in a certain way*, e.g., "If I disagree with someone, they will think I am stupid/will reject me", "If my hands shake/I blush/or show other signs of anxiety, people will think I am incompetent/odd/stupid", "If I am quiet, people will think I am boring", "If people get to know me, they won't like me".

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[1] The Clark and Wells model draws heavily on the writings of earlier theorists, especially those of Beck, Emery, and Greenberg (1985), Butler (1985), Hartman (1983), Heimberg and Barlow (1988), Leary (1983), Salkovskis (1991), Teasdale and Barnard (1993), and Trower and Gilbert (1989), but is unique in the particular synthesis it proposes. If the reader views the synthesis as worthwhile, it is because its authors benefited from "standing on the shoulders of giants".
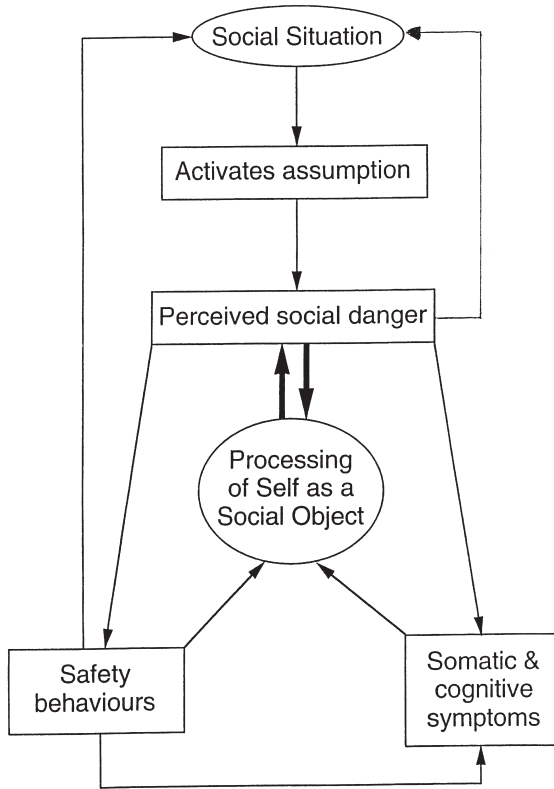
Figure 18.1 A model of the processes that occur when a social phobic enters a feared social situation (adapted from Clark & Wells, 1995)

- *Unconditional negative beliefs about the self*, e.g., "I'm odd/different", "I'm unlikeable/unacceptable", "I'm boring", "I'm stupid", "I'm different".

Such assumptions lead individuals to appraise relevant social situations as dangerous, to predict that they will fail to achieve their desired level of performance (e.g., "I'll shake, I'll make a fool of myself") and to interpret often benign or ambiguous social cues as signs of negative evaluation by others. Once a social situation is appraised in this way, the social phobic becomes anxious. Several interlinked vicious circles then maintain the individual's distress and prevent disconfirmation of the negative beliefs and appraisals.

Processing of the Self as a Social Object

A key factor is a shift in focus of attention and a particular type of negative self-processing. When individuals with social phobia believe they are in danger of negative evaluation by others, they shift their attention to detailed monitoring and

observation of themselves. They then use the internal information made accessible by self-monitoring to infer how they appear to other people and what other people are thinking about them. In this way they become trapped in a closed system in which most of their evidence for their fears is self-generated and disconfirmatory evidence (such as other people's responses) becomes inaccessible or is ignored.

Three types of internal information are used to generate a negative self-impression. First, feeling anxious is equated with looking anxious. This can lead to marked distortions. For example, an individual may have a strong shaky feeling and assume that others must be able to see his or her hand shaking violently, when all that can be observed by others is a mild tremor or nothing at all. Second, many patients with social phobia appear to experience spontaneously occurring images in which they see themselves as if viewed from an observer's perspective. Unfortunately, what they see in the image is not what the observer would see but rather their fears visualized. For example, an individual who was concerned that she would appear stupid if she joined in a conversation with colleagues experienced marked tension around her lips before speaking. The tension triggered an image in which she saw herself with a contorted facial expression, looking like the "village idiot". Third, more diffuse types of "felt sense" can also contribute to the negative impression of one's social self. For example, the woman with the distorted image also felt "different and apart" from the other people she was sitting close to and wanted to talk to. This "felt" sense further reinforced her perception of herself as appearing stupid and uninteresting.

Safety Behaviours

When discussing phobias in general, Salkovskis (1991, 1996) suggested that patients often fail to benefit from the non-occurrence of a feared catastrophe when they are in a phobic situation because they engage in a variety of safety-seeking behaviours that are intended to prevent or minimize the feared catastrophe. If the catastrophe then fails to occur, patients ascribe the non-occurrence to the safety behaviour rather than inferring that the situation is less dangerous than they previously thought. Clark and Wells agree that safety behaviours operate in this fashion in social phobia and highlight several additional interesting features of social phobia-related safety behaviours.

First, although termed "behaviours", many safety-seeking acts are internal mental processes. For example, patients with social phobia who are worried that what they say may not make sense and will sound stupid, often report memorizing what they have said and comparing it with what they are about to say, while speaking. If everything goes well, patients are likely to think, "it only went well because I did all the memorizing and checking, if I had just been myself people would have realized how stupid I was".

Second, because there are often many levels to social phobics' fears, it is common for patients to engage in a large number of different safety behaviours while in a feared situation. Table 18.1 illustrates this point by summarizing the

Table 18.1   Safety behaviours associated with a patient's fear of blushing

Feared outcome	Safety behaviour intended to prevent feared outcome
"My face (and neck) will go red"	Keep cool (open windows, drink cold water, avoid hot drinks, wear thin clothes). Avoid eye contact. If in a meeting, pretend to be writing notes in order to look professional. Keep topic of conversation away from "difficult" issues. Tell myself the man isn't really attractive; "He's no more than a 2 (out of 10) for attractiveness".
"If I do blush, people will notice"	Wear clothes (scarf, high collar) that would hide part of blush. Wear make-up to hide the blush. Put hands over face; hide face with long hair. Stand in a dark part of the room. Turn away.
"If people notice, they will think badly of me"	Say something to suggest an alternative explanation for red face; viz. "It's hot in here", "I'm in a terrible rush today", "I'm recovering from flu", etc.

Adapted from Clark (1999, p. 58).

safety behaviours used by a patient who had a fear of blushing, especially while talking to men whom she thought other people would think were attractive. There were three components to her fear of blushing: fearing she would blush, fearing people would notice the blush, and fearing people would evaluate her negatively because of the blush. Several safety behaviours were used to try to prevent each feared outcome.

Third, safety behaviours can create some of the symptoms that social phobics fear. For example, trying to hide underarm sweating by wearing a jacket or keeping one's arms close to one's sides, produces more sweating. Similarly, memorizing what one has been saying makes it difficult to keep track of a conversation, triggering the thought "other people will think I'm boring/stupid".

Fourth, most safety behaviours have the consequence of increasing self-focused attention and self-monitoring, thus further enhancing the salience of one's negative self-image and reducing attention to others' behaviour.

Fifth, some safety behaviours can draw other people's attention to the patient. For example, a secretary who covered her face with her arms whenever she felt she was blushing discovered that colleagues in her office were considerably more likely to look at her when she did this than when she simply blushed. Similarly, a patient who intensely disliked being the centre of attention would speak quietly when trying to make a point in a meeting. The consequence of this manoeuvre was that people had difficulty hearing what she was saying and therefore stared at her.

Finally, some safety behaviours influence other people in a way which partly confirms the social phobic's fears. For example, social phobics' tendency to continually monitor what they have said and how they think they have been received

often makes them appear distant and preoccupied. Similarly, their efforts to hide signs of anxiety and not show signs of weakness can make them appear aloof and unfriendly. Other people can interpret such behaviours as a sign that the phobic does not like them and, as a consequence, they respond to the phobic in a less warm and friendly fashion. In an observational study, Stopa and Clark (1993) confirmed that patients with social phobia can appear less outgoing and warm. Traditionally, this has been seen as a result of social skills deficits (Trower, Yardley, Bryant, & Shaw, 1978). In contrast to this point of view, Clark and Wells suggest that most social phobics have an adequate social skills capacity and their apparent social performance deficits are simply the observable side of their safety-seeking behaviours.

Somatic and Cognitive Symptoms

Social anxiety is accompanied by marked arousal. Patients are particularly concerned about the somatic and cognitive symptoms of anxiety that they think could be observed by others (e.g., sweating, feeling hot in the face, tremor, mental blanks) and interpret them as signs of impending or actual failure to meet their desired standards of social performance. Because of the perceived significance of arousal symptoms, patients are often hypervigilant for such symptoms. This hypervigilance tends to increase the subjective intensity of the somatic and cognitive symptoms. The symptoms can also be enhanced by a variety of safety behaviours (see sweating example above).

Processing of External Social Cues

The model by Clark and Wells places particular emphasis on self-focused attention and the use of internal information to construct a distorted, negative impression of one's observable self. Overall, it is thought that social anxiety is associated with reduced processing of external social cues. However, Clark and Wells also suggest that social phobics' (reduced) processing of the external social situation is likely to be biased in a negative direction. In particular, they may be more likely to notice and remember responses from others that they interpret as signs of disapproval. Given the relative paucity of overt negative reactions in most normal social interactions, many of the cues that are noticed and remembered may be ambiguous cues that can be interpreted negatively. This phenomenon may be particularly evident in public-speaking anxiety. Perhaps as a consequence of misapplying a rule about one to one social interactions ("when listening to another person, people should show that they are following the conversation by smiling/nodding, etc.") to lecturing situations, social phobics tend to interpret the absence of positive responses (no nods, no smiles), and the presence of ambiguous responses (looking down at one's notes, breaking eye contact) in an audience as signs of disapproval, when they could equally well be signs that the presentation is stimulating and thought provoking.

Processing before and after a Social Situation

Many social phobics experience considerable anxiety when anticipating a social event. Prior to the event they review in detail what they think might happen. As they start to think about the event, they become anxious and their thoughts tend to be dominated by recollections of past failures, by negative images of themselves during the event, and by other predictions of poor performance and rejection. Sometimes these ruminations lead the phobic to avoid the event completely. If this doesn't happen and the phobic participates in the event, he or she is likely to be already in a self-focused processing mode, expect failure, and be less likely to notice any signs of being accepted by other people.

Leaving or escaping from a social event does not necessarily bring to an immediate end the social phobic's negative thoughts and distress. There is no longer an immediate social danger and so anxiety rapidly declines. However, the nature of social interactions is such that the social phobic is unlikely to have received from others unambiguous signs of social approval, and for this reason it is not uncommon for him or her to conduct a "post-mortem" of the event. The interaction is reviewed in detail. During this review, the patient's anxious feelings and negative self-perception are likely to figure particularly prominently as they were processed in detail while the patient was in the situation, and hence would have been strongly encoded in memory. The unfortunate consequence of this is that the patient's review is likely to be dominated by his or her negative self-perception and the interaction is likely to be seen as much more negative than it really was. This may explain why some social phobics report a sense of shame that persists for a while after the anxiety has subsided. A further aspect of the post-mortem is the retrieval of other instances of perceived social failure. The recent interaction is then added to the list of past failures, with the consequence that an interaction which may have looked entirely neutral from an outside observer's perspective will have strengthened the patient's belief in his or her social inadequacy. Finally, some relatively minor aspects of the interaction can be subsequently appraised in a negative fashion and persistently ruminated about. For example, a patient at a dinner buffet mentioned how much he liked a bread and butter pudding. Later in the evening, he heard his hostess say she disliked bread and butter pudding. Afterwards, he thought his comment revealed he was unsophisticated and worthless.

EMPIRICAL STATUS OF THE COGNITIVE MODEL

The cognitive model outlined above comprises a series of testable hypotheses. Existing studies relevant to several of the key hypotheses are reviewed below. In some instances, the studies have used an analogue design in which high and low socially anxious non-patients are compared, rather than a clinical design in which patients with social phobia are compared with non-patients or with patients with

another anxiety disorder. To avoid confusion, the effects observed in such studies are described as attributable to social anxiety rather than social phobia per se.

Hypotheses

Hypothesis 1: Social phobics interpret external social events in an excessively negative fashion   It has been suggested (Beck, Emery, & Greenberg, 1985; Clark & Beck, 1988; Clark & Wells, 1995) that at least two biases in the interpretation of external social events play a role in social phobia. First, patients with social phobia may have a tendency to interpret ambiguous social events in a negative fashion. Second, they may interpret unambiguous but mildly negative social events (e.g., mild criticism from an acquaintance) in a catastrophic fashion.

Amir, Foa, and Coles (1998) used a modification of a questionnaire originally developed by Butler and Mathews (1983) to assess interpretation of ambiguous events. Patients with generalized social phobia, patients with obsessive-compulsive disorder, and non-patient controls were presented with ambiguous social events (e.g., "someone you are dating says 'hello' to you") and ambiguous non-social events (e.g., "you receive a phone call from a clerk at your bank regarding your loan application"). After each event, three possible interpretations were presented and participants ranked the interpretations with respect their likelihood of coming into one's own mind or the mind of a "typical person" when in a similar situation. The results indicated that social phobia patients were more likely to make a negative interpretation of an ambiguous social event than either patients with obsessive-compulsive disorder or non-patient controls, and this effect only occurred in the self-relevant condition. In addition, the three groups did not differ in their interpretation of ambiguous non-social events.

Stopa and Clark (2000) confirmed and extended Amir et al.'s findings. Patients with generalized social phobia, equally anxious patients with other anxiety disorders, and non-patient controls were compared in terms of their interpretation of hypothetical ambiguous social events and mildly negative social events. For ambiguous events, patients with social phobia were more likely than both control groups to make, and believe, negative interpretations of social events but did not differ from other anxious patients in the likelihood of making, or believing, negative interpretations of non-social events. When presented with unambiguous, mildly negative events patients with social phobia were significantly more likely than both control groups to infer that the events would have catastrophic consequences.

Taken together, the questionnaire studies by Amir et al. (1998) and Stopa and Clark (2000) suggest that social phobia is associated with specific negative biases in the interpretation of self-referent social events. However, neither study assessed on-line interpretations, so it is unclear at this stage whether social phobics make the inferences identified in the studies on-line while observing external events in a social situation or whether they are more indirect inferences based on pre-existing beliefs and the contents of their negative self-impressions

(Stopa & Clark, 1993). A recent study of online processing in a text comprehension task (Hirsch & Mathews, 2000) provided data consistent with the latter possibility as non-patient controls showed a positive on-line inferential bias but social phobics failed to demonstrate positive or negative on-line emotional inferences. Further research is required to clarify this issue.

Hypothesis 2: Social phobics show enhanced self-focused attention when anxious in social situations   The hypothesis that social phobia is associated with heightened self-focused attention has a long lineage and is well supported. Fenigstein, Scheier, and Buss (1975) defined public self-consciousness as attention to aspects of the self that might be observable to others and reported a significant positive correlation between public self-consciousness and social anxiety—a finding that was replicated by Hope and Heimberg (1988). Patients with social phobia have repeatedly been shown to score higher on the public self-consciousness scale than patients with other anxiety disorders and non-patients (Bruch, Heimberg, Berger, & Collins, 1989; Bruch & Heimberg, 1994; Saboonchi, Lundh, & Öst, 1999). Mellings and Alden (2000) studied attentional focus in social situations and found that high socially anxious individuals reported higher levels of self-focused attention than low socially anxious individuals.

Within the Clark and Wells model, self-focused attention increases the social phobic's awareness of interoceptive information that is likely to be taken as a sign that one is about to fail, or has failed, to convey an acceptable impression to others. As a consequence, it increases social anxiety. Woody (1996) provided direct support for the anxiety-inducing effects of self-focused attention by showing that an experimental manipulation of self-focus increased the anxiety levels of patients with generalized social phobia during a speech task.

Hypothesis 3: Social phobics show reduced processing of external social cues when anxious   Mansell, Clark, Ehlers, and Chen (1999) used a modified dot-probe task to assess the hypothesis that social anxiety is associated with reduced processing of external social cues. Individuals scoring high and low on Fear of Negative Evaluation (FNE; Watson & Friend, 1969) were briefly presented with pairs of pictures, consisting of a face and a household object, under conditions of social-evaluative threat or no threat. As predicted, high socially anxious individuals showed an attentional bias away from faces when tested under conditions of social-evaluative threat, but not otherwise. More recently, using the same paradigm, Chen, Ehlers, Clark, and Mansell (2000) have reported that patients with social phobia also show reduced processing of faces.

Several memory studies have also provided results consistent with the diminished attention to external social cues hypothesis. If social phobics fail to attend to aspects of the external social situation, they should show reduced memory for such information. Kimble and Zehr (1982), Daly, Vangelisti, and Lawrence (1989), Hope, Heimberg, and Klein (1990) and Mellings and Alden (2000) all found that, compared to low socially anxious individuals, high socially anxious individuals had a poorer memory for details of a recent social interaction. As one

might expect from the cognitive model, Mellings and Alden (2000) also found that recall of external social information (partner details) was poorest in individuals with the highest levels of self-focused attention during the interaction.

Hypothesis 4: Social phobics generate distorted observer-perspective images of how they think they appear to others when in feared social situations   Hackmann, Surawy, and Clark (1998) used a semistructured interview to assess the frequency and characteristics of spontaneous imagery in social anxiety-provoking situations. Consistent with the hypothesis, the majority (77%) of patients with social phobia reported experiencing negative, observer-perspective images, which they thought were at least partly distorted when they subsequently reflected on them. In contrast, only 10% of non-patient controls reported such images and their images were in general less negative. In a subsequent interview study, Hackmann, Clark, and McManus (2000) further explored the nature of social phobic imagery. Many images appeared to be recurrent, in the sense that they occurred in similar form in many different social situations. In addition, they often seemed to date back to a time close to the onset of the social phobia and to be linked to memories of criticism, humiliation, bullying and other adverse social events. These findings are consistent with the possibility that a mental image of the patient's observable, social self is laid down after early traumatic social experiences and the image is reactivated in subsequent social encounters without being markedly updated in the light of subsequent, more positive experience. Lack of updating could partly be a consequence of the social phobic's reduced attention to external social cues.

Hypothesis 5: Social phobics use the internal information made accessible by self-focused attention to make (erroneous) inferences about how they appear to others   Five studies (McEwan & Devins, 1983; Papageorgiou & Wells, 1997; Mansell & Clark, 1999; Mulkens, de Jong, Dobbelaar, & Bögels, 1999; Mellings & Alden, 2000) have provided evidence consistent with the hypothesis that socially anxious individuals use internal information to make excessively negative inferences about how they appear to others. In the first study, McEwan and Devins (1983) found that high socially anxious individuals who reported that they generally experience intense somatic sensations in social situations overestimated how anxious they appeared to their peers. In contrast, low socially anxious individuals and high socially anxious individuals who did not experience intense somatic sensations were accurate in their estimates of anxiety visibility. In an unpublished study, Papageorgiou and Wells (1997) found that high socially anxious individuals who were led to believe their heart rate was increasing just before a social-evaluative conversation later underestimated how well they came across to their conversation partner. Low socially anxious individuals did not show this effect.

   Mansell and Clark (1999) required high and low socially anxious individuals to give a speech. Immediately afterwards, participants rated the extent to which they were aware of bodily sensations during the speech and how well they

thought they appeared and performed. An independent assessor also rated participants' appearance and performance. Among high socially anxious individuals, there was a significant positive correlation between perceived bodily sensations and the extent to which the individuals overestimated negative aspects of their appearance (looking anxious, awkward, unconfident, etc.) Low socially anxious individuals did not show this effect.

Mulkens et al. (1999) required high and low fear of blushing individuals to engage in two social tasks which varied in embarrassingness. Objective measures of facial coloration and skin temperature indicated that the more embarrassing task produced more coloration but the two groups did not differ in objective coloration. However, subjective ratings indicated that the high fear of blushing group thought they had blushed more. Mulkens et al. suggest that the difference in subjective ratings between the high and low fearful groups arose because the former are likely to engage in more self-focused attention, which would enhance awareness of facial skin temperature. Finally, Mellings and Alden (2000) required high and low socially anxious individuals to have a conversation with a confederate. Compared to the judgements of an independent assessor, high socially anxious individuals overestimated the visibility of several anxiety-related behaviours and the amount of overestimation was positively correlated with self-focused attention during the interaction.

Hypothesis 6: In-situation safety seeking behaviours and self-focused attention prevent disconfirmation of social phobics' negative beliefs and maintain social phobia   Wells et al. (1995) tested the hypothesis that in-situation safety behaviours play a role in maintaining social phobia by comparing one session of exposure to a feared social situation with one session of similar exposure accompanied by the intentional dropping of safety behaviours. Although the two procedures did not differ in patients' credibility ratings, exposure and the dropping of safety behaviours produced significantly greater reductions in anxiety and belief ratings for feared outcomes in a behaviour test administered before and after the intervention. Morgan and Raffle (1999) obtained essentially similar results in a longer term study in which a three-week programme of "standard" group cognitive-behaviour therapy was compared with a three-week programme in which dropping safety behaviours manoeuvres were added to the standard protocol. Patients with social phobia whose treatment included dropping safety behaviours showed significantly greater improvements on the Social Phobia and Anxiety Inventory (Turner, Beidel, Dancu, & Stanley, 1989).

Most of the safety behaviours associated with social phobia have the effect of increasing self-focused attention. Wells and Papageorgiou (1998) assessed whether self-focused attention alone can maintain social anxiety by comparing one session of exposure to a feared social situation with one session of similar exposure accompanied by external focus of attention. Consistent with the hypothesis, exposure with external focus of attention produced significantly greater reductions in patients' anxiety and belief ratings in a subsequent behaviour test.

Hypothesis 7: In-situation safety behaviours and self-focused attention can conta-minate social interactions by making social phobics less appealing to others
Several studies have found that patients with social phobia and other socially anxious individuals are less liked by conversational partners in first meeting situations and tend to be viewed as less likeable, less sympathetic or less easy to talk to by their friends (Alden & Wallace, 1995; Jones & Carpenter, 1986). Clark and Wells suggest that such effects are the unfortunate and unintended consequence of the safety-seeking behaviours that patients use in an attempt to prevent feared social catastrophes (e.g., making a fool of myself, seeming stupid). Examples of such safety behaviours include: rehearsing sentences before speaking, only speaking briefly, memorizing what one has said, self-monitoring, avoiding eye contact, and not talking about oneself. An alternative explanation is that social phobics are evaluated less positively because they have a general deficit in social skills development.

   If the Clark and Wells hypothesis is correct, individuals' beliefs about whether other people are evaluating them negatively should have a marked effect on how they are perceived (because they will be more likely to engage in safety behaviours if they think they are being evaluated negatively). An elegant experiment by Curtis and Miller (1986) demonstrated this point. Students had a conversation with another person. After the conversation, they were given false feedback, indicating that the other person either liked or disliked them. They then had a second conversation with the same person. At the end of this conversation, that person was asked to rate the student. Students who were led to believe that the other person disliked them after the first conversation were rated as less warm, self-disclosing, and friendly after the second conversation and were less well liked.

   Alden and Bieling (1998) provided more direct support for the safety behaviours hypothesis in an experiment in which high and low socially anxious individuals participated in a getting-acquainted task under conditions in which they were led to believe that the other person was particularly likely to appraise them positively or negatively. High socially anxious individuals used more safety behaviours and elicited more negative responses from others in the negative appraisal condition than in the positive appraisal condition.

Hypothesis 8: Social phobics' (reduced) processing of external social cues is biased in favour of detection and recall of cues that could be interpreted as signs of disapproval from others   Three studies have reported results consistent with this hypothesis. Veljaca and Rapee (1998) required high and low socially anxious individuals to intentionally monitor and detect audience reactions while they were giving a speech. Compared to low socially anxious individuals, high socially anxious individuals were better at detecting negative audience behaviours (yawning, looking at watch, coughing) than positive audience behaviours (leaning forward, smiling, nodding). Gilboa-Schechtman, Foa, and Amir (1999) presented patients with social phobia and non-patient controls with a display of 12 faces

and required them to detect the odd one out ("face-in-the-crowd paradigm"). Patients with social phobia were faster at detecting angry faces than happy faces in a neutral crowd. Non-patient controls did not show this effect. Lundh and Öst (1996) required patients with social phobia and non-patient controls to rate photographically presented faces as generally critical or accepting and shortly afterwards presented a surprise recognition test. Patients with social phobia showed a bias in favour of better recognition of faces they had categorized as critical than faces they had categorized as accepting. Non-patient controls did not show this effect.

Hypothesis 9: Social phobics engage in negatively biased anticipatory processing before entering feared social situations Clark and Wells propose that social phobics engage in a variety of negatively biased cognitive processes in anticipation of feared social situations and that these processes increase anxiety and avoidance. One key process is selective recall of negative information about one's perceived, observable self. Mansell and Clark (1999) investigated recall of such information in an experiment in which high and low socially anxious students encoded positive and negative words in three different encoding conditions: public self-referent ("describes what someone who knows you, or who had just met you, would think of you"), private self-referent ("describes how you think about yourself") and other-referent ("describes your next door neighbour"). After encoding the words, participants were either threatened with giving a speech or not threatened. They were then asked to recall the words. Compared to low socially anxious individuals, high socially anxious individuals recalled fewer positive words and tended to recall more negative words. As predicted, this effect only occurred when individuals were anticipating giving a speech and was restricted to words encoded in terms of how they thought they would appear to other people (public self-referent condition). It therefore appears that a key aspect of anticipatory anxiety is selective retrieval of negative impressions of one's observable self.

Clark and Wells also suggest that social phobics selectively retrieve specific instances of past social failures when anticipating a stressful interaction. Hinrichsen and Clark (2000) reported a semistructured interview study that produced results consistent with this hypothesis. Compared to low socially anxious individuals, high socially anxious individuals were significantly more likely to report recalling and dwelling on past perceived social failures when anticipating a difficult social task. However, Mellings and Alden (2000) failed to observe a similar effect in an experimental study.

Hinrichsen and Clark's (2000) semistructured interview covered a wide range of possible anticipatory processes. As well as being more likely to report recalling past social failures, high socially anxious individuals were also more likely than low socially anxious individuals to: (1) dwell on ways of avoiding, or escaping from, the social situation; (2) catastrophize about what might happen in the situation; (3) engage in anticipatory safety behaviours (plan what they

will say, mentally rehearse conversations, think of ways of putting things right if one makes a fool of oneself); and (4) generate negative, distorted, observer-perspective images about how they might appear in the situation. A second, experimental, study investigated whether the cognitive processes identified in the interview study played a role in maintaining anticipatory anxiety. Prior to giving a speech, individuals either engaged in the identified processes or performed a distraction task. Engaging in the mental processes that have been shown to be characteristic of high socially anxious individuals in the interview study produced more sustained elevations of anticipatory anxiety in both high and low socially anxious individuals, and led to higher levels of peak anxiety during the speech.

Hypothesis 10: Social phobics engage in prolonged, negatively biased, post-event processing   A novel aspect of the Clark and Wells model is the proposal that patients with social phobia engage in detailed post-event processing. No studies have investigated this hypothesis in patients. However, Rachman, Grüter-Andrew, and Shafran (2000) and Mellings and Alden (2000) both reported that high socially anxious individuals engage in more prolonged post-event processing than low socially anxious individuals. Rachman et al. (2000) noted that post-event processing involves recollections of the social event that tend to be recurrent and intrusive, interfering with concentration. Post-event processing was associated with greater subsequent avoidance of similar social situations. Mellings and Alden (2000) found that frequency of post-event rumination predicted recall of negative self-related information in a memory task performed one day after a stressful social interaction. Finally, Wells, Clark, and Ahmad (1998) and Wells and Papageorgiou (1999) investigated perspective taking in imagery recall of past anxiety-provoking situations and found that, compared to low socially anxious individuals, high socially anxious individuals and patients with social phobia were more likely to take an observer perspective in images of past social situations. Unfortunately, neither of these studies assessed the content of the images, so it is not known whether they were predominantly negative and distorted, as suggested by the model.

   Taken together, these four preliminary studies suggest that post-event processing occurs and has several of the characteristics highlighted in the Clark and Wells model.

Conclusions

The studies reviewed above provide encouraging support for most of the hypotheses embedded within the Clark and Wells model. However, for some of the hypotheses only analogue studies have so far been reported and it will be necessary to confirm their findings in studies with patients. In addition, several key aspects of the hypotheses remain to be assessed and the true causal status of several processes needs to be demonstrated by experimental manipulation of the relevant process.

A THEORY DERIVED COGNITIVE TREATMENT

Historically, some of the most effective cognitive-behavioural treatments for anxiety disorders have been developed by identifying the processes that normally prevent cognitive change and devising efficient procedures for reversing those maintaining processes (see Clark, 1997, 1999). With this in mind, Clark, Wells, and colleagues have devised a specialized cognitive treatment for social phobia which aims to reverse the maintaining processes specified in the model. As the model places particular emphasis on self-focused attention, negative self-processing, and safety behaviours, the treatment particularly emphasizes ways of reversing these features in order to reconfigure social phobics processing strategies in a way which will maximize opportunities for disconfirming negative beliefs by direct observation of the social situation, rather than oneself. A brief overview of the procedures is given below. Further expositions of the treatment can be found in Clark and Wells (1995), Wells and Clark (1997), Clark (1997), and Wells (1997, 1998).

Therapeutic Relationship

Social phobics pose particular problems for the therapeutic relationship. Therapy is itself a social interaction. For this reason, in the early stages of treatment patients may behave in therapy sessions in ways that are similar to how they behave in other feared social situations. First, they may employ fear-driven self-presentation manoeuvres (safety behaviours) that have the consequence of making them appear aloof, uninterested, or dismissive. It is important that therapists do not take offence or personalize these behaviours. Once patients start to make progress in therapy, their self-presentation can change dramatically and more open, relaxed individuals emerge. Second, some common therapist behaviours (leaning forward in one's chair, looking empathetically into patients' eyes when they appear anxious) can increase patients' self-consciousness, exacerbate mental blanks, and enhance their anxiety levels. For this reason, such manoeuvres should be used with caution in early sessions.

Deriving an Idiosyncratic Version of the Model

Therapy invariably starts by reviewing one or more recent, prototypical episodes of social anxiety. Careful questioning is used to develop an idiosyncratic version of the cognitive model. In order to reduce the patient's self-consciousness during questioning, and to help keep therapist and patient focused on the same parts of the episode, the model is usually developed on a white board. An example is shown in Figure 18.2. First, the patient's negative thoughts concerning feared outcomes and their perceived consequences are specified. Once the feared outcomes
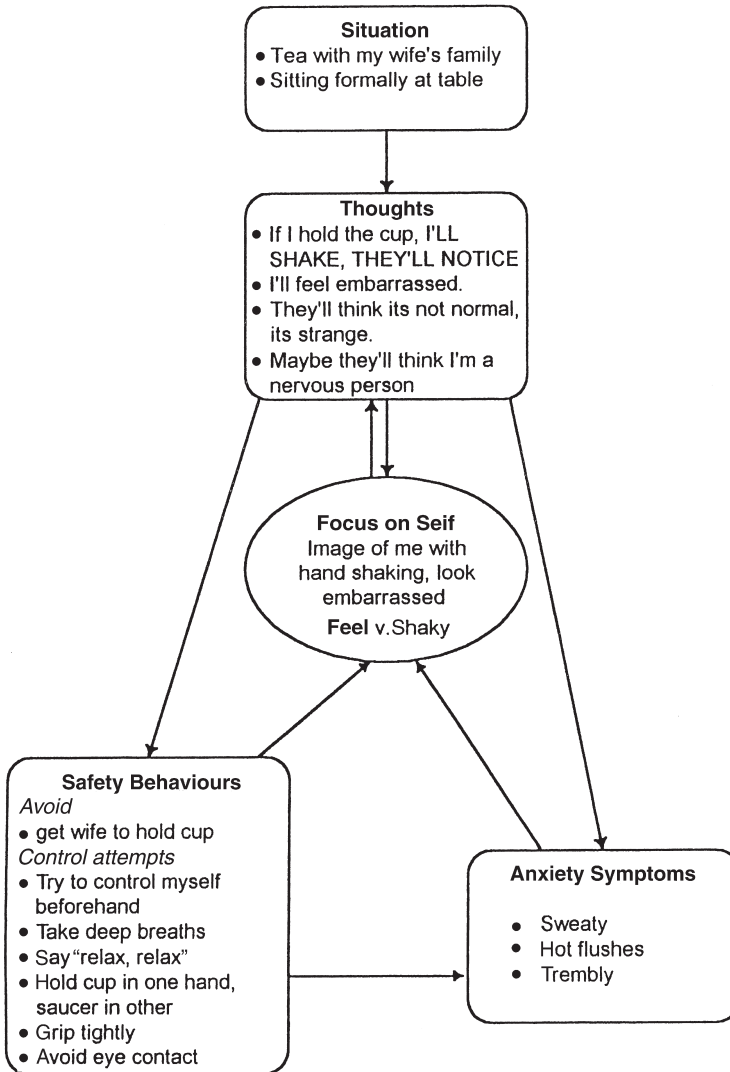
Figure 18.2   An idiosyncratic version of the cognitive model

have been identified, a comprehensive list of safety behaviours that are used to prevent different levels of outcome can be developed. Particularly useful questions include: "When you thought (specify the feared outcome) might/was happening, did you do anything to try to prevent it from happening? Did you do anything to try to prevent people from noticing?" and "Is there anything you do to try to ensure you come across well?". The shift to increased self-focused attention and the contents of patients' self-impressions are also identified. Useful ques-

tions for eliciting the self-impression include: "When you feel self-conscious, what are you aware of?", "Do you have an image of how you think you appear", "How do you feel you come across?". Typically, the self-impression contains one or more of the following elements: an observer-perspective image of how one might appear to others; awareness of anxious feelings that the patient thinks could be observable; and a felt sense of appearing different/deficient. The images often contain visible (or audible) distortions derived from interoceptive cues. For example, a warm forehead and slight sweating sensation can be transformed into a picture of rivulets of sweat running down the forehead. If the image is recurrent and seems to date from a much earlier traumatic social event, it can be helpful to clarify this point with patients in order to allow them to start to entertain the possibility that their self-impression is an excessively negative historical relic that has failed to update.

Manipulation of Self-focused Attention and Safety Behaviours

Once the patient and therapist have agreed a working version of the cognitive model, key elements of the model are manipulated. We have found that changing focus of attention and safety behaviours is often the best way to start. During a treatment session patients are asked to role-play a feared interaction under two conditions. In one condition, they are asked to focus attention on monitoring themselves and to use all of their normal safety behaviours. In the other condition, they are asked to drop their safety behaviours and focus their attention on the other person(s) in the interaction and on what is being said. After each role-play, patients rate how anxious they felt, how anxious they thought they appeared, and how well they thought they performed. By comparing these ratings several points can be established. First, to patients' considerable surprise, their previously habitual self-focus and safety behaviours seem to be associated with feeling more anxious, not less anxious. Second, ratings of how anxious patients think they appear and how well they think they performed closely follow the ratings of how they felt, indicating that they are using their feelings and other interoceptive information to infer how they appear to others.

Video and Audio Feedback

Once it is established that patients are using interoceptive information to infer how they appear to others, the next step is to obtain realistic information about how they actually appear. We have found video feedback to be a particularly effective way of doing this and routinely show patients the video of the focus of attention/safety behaviours experiment. In principle, video feedback allows patients to see their true, observable self directly. However, in our early explorations of the technique, we noticed that it could sometimes fail with patients continuing to view their video appearance more negatively than an impartial

observer. Questioning indicated that one reason for this was that patients re-experienced feelings they had during the experiment while viewing the video. The feelings then influenced their perception in a negative direction. To resolve this problem, and to maximize perceived discrepancies between patients' self-image and the video, we now ask patients: (1) to visualize how they think they will appear before viewing the video, (2) to operationalize what their negative behaviours will look like ("How much will you shake? Please show me"; "How red is the blush? Please pick out a colour from the colour chart", etc.), and (3) to watch themselves as though they were watching a stranger, only drawing inferences from the visual and auditory information that would be available to any viewer, explicitly ignoring their feelings. With this cognitive preparation, video feedback usually helps patients to discover that they come across better than they think and, as a consequence, that their self-impression is misleading. Of course, they sometimes notice things that seem unsatisfactory as well. However, discussion often reveals that those behaviours are the consequence of a safety-seeking manoeuvre, and hence can be dropped. For example, a patient who was concerned that she would sound dysfluent and incoherent discovered that her speech was highly fluent but very slow. Questioning revealed that the slowness was an intentional strategy that could easily be dropped. Similarly, a patient who was concerned that his hand visibly shook while drinking with friends in a bar tended to turn his back to colleagues before drinking. Video feedback helped him see that the shaking was barely noticeable but the back turning looked strangely furtive.

Shift of Attention and Interrogation of the Social Environment

The next stage in therapy involves encouraging patients to shift to an external focus of attention and to drop their safety behaviours during social interactions in therapy sessions and homework assignments. The explicit rationale for this manoeuvre is that the evidence the patient normally uses to infer how he or she appears to others (i.e., the contents of their self-awareness) is inaccurate and it is necessary to focus more on the interaction and other people's responses in order to obtain a more accurate impression of how one appears.

As in other cognitive-behavioural programmes, patients are encouraged to systematically confront feared and avoided social events and tasks. However, the way exposure is conducted is rather different from the way that it is conducted in at least some of the traditional behavioural approaches. In particular, simple repetition of an exposure assignment is not considered to be helpful in itself. The guiding principle of treatment is not habituation per se, but rather a cognitive change framework in which exposure is explicitly used to test predictions the patient has about the danger in a particular situation.

Table 18.2 shows the way an exposure assignment is set up and afterwards processed in the cognitive treatment. The patient was a teacher who had difficulty joining in conversations with other teachers during coffee breaks. Ques-

Table 18.2 Record sheet for noting behavioural experiments

Date	Situation	Prediction (What exactly did you think would happen? How would you know?) (Rate belief 0–100%)	Experiment (What did you do to test the prediction?)	Outcome (What actually happened? Was the prediction correct?)	What I learned 1. Balanced view? (Rate belief 0–100%) 2. How likely is what you predicted to happen in future (Rate 0–100%)?
Mon 7/8	Coffee break. Sitting with other teachers. Trying to join in the conversation.	If I just say things as they come into my mind, they'll think I'm stupid. 50%.	Say whatever comes into my mind *and* watch them like a hawk. Don't focus on myself. This only gives me misleading information (such as images of myself as the "village idiot"), and means I can't see them.	I did it and I watched the others. One of them showed interest and we talked. She seemed to quite enjoy it.	I am probably more acceptable than I think. 70%

Reproduced with permission from Clark (1999, p. S18).

tioning helped her to articulate the prediction: "If I just say the things that come into my mind, they will think I'm stupid." Normally she would think very carefully about all the clever things she could say and then choose one for the conversation (safety behaviour). The assignment helped her to discover that, contrary to her prediction, she was acceptable even without her frantic attempts at self-presentation.

As many social phobics have excessively high standards for social performance, it can be particularly helpful to encourage patients to behave in ways that they would consider unacceptable (given their rules) and observe others' responses. This exercise, which we have termed "widening the bandwidth" helps patients to discover that there are a wide range of acceptable ways of behaving in social situations. Such knowledge can be remarkably liberating as it means they no longer have to attempt to follow strict, and difficult to observe, rules. In order to maximize the impact of bandwidth-broadening experiments, it is important that patients specify in advance the ways in which other people would respond if the patient's predictions about the unacceptability of a particular behaviour were correct. For example, a patient who was excessively concerned about underarm sweating was encouraged to use water to dampen the armpits of his shirt before going into a shop and revealing his underarm to the shop assistant by pointing to an object on a high shelf. He predicted that the assistant would react with horror and this would be evident either by her being unable to look at his armpits (because she would be too embarrassed) or by her being unable to keep her eyes off them. Neither occurred, indicating that underarm perspiration had less significance to others than the patient had anticipated. Other common examples used to test particular rules include: introducing intentional pauses in mid-sentence or introducing um's and ah's in one's speech; intentionally shaking and spilling a drink; introducing a boring topic into a conversation, and expressing an opinion that you know others disagree with. A particular interesting feature of "widening bandwidth" exercises is that they allow patients to experientially discover many of the complexities of social interaction. For example, a patient who was afraid of boring other people often switched conversation topics. Questioning revealed that he used an internal clock to decide when to change topics. The clock seemed largely influenced by his feelings of discomfort, rather than by others' responses to the topic. As an experiment he was asked to continue with topics until the other person changed them. To his surprise he found that the slightly longer conversations that resulted were more fun and seemed more natural. In addition, he discovered that, in general, topic changing is nobody's specific responsibility. Instead, it has its own rhythm and happens fairly naturally, as long as you do not assume you are 100% responsible for it.

Surveys can be another excellent way of testing the negative predictions about what other people think of behaviours that patients are afraid of showing. For example, a social phobic who stuttered, and was concerned that other people would think she was stupid, was greatly reassured by a survey in which 15 people were asked what they thought of someone who stutters. To her surprise, nobody

thought it was a sign of stupidity and respondents provided a wide range of explanations for why someone might stutter (mind on something else, thinking faster than she can think, a speech impediment, had been criticized as a child, etc.), none of which she considered threatening. Our survey questions tend to progress from general enquiries (i.e., "Why do you think people stutter?") to patients' specific negative predictions about the meaning of particular behaviours (i.e., "Do you think stuttering means someone is stupid?"). Responses to the latter provide the clearest disconfirmation of patients' beliefs. Of course, one cannot guarantee that an isolated individual might not concur with the negative evaluation. In such instances, it is useful to ask questions such as: "Is this person's opinion more valid than everyone else's?", "Does it matter if one person disapproves?", "Is it possible to please everyone all the time?", "If you disapproved of something similar in another person, would that make them deficient or worthless?".

Throughout the interrogation of the environment stage, the standard cognitive therapy discussion techniques (such as pie charts, conditional probability inverted pyramids, and decatastrophizing: see Clark, 2000) are used to help patients to maximize the benefit obtained from the behavioural experiments. Video feedback continues to be used to provide clear information about one's observable self and to try out different ways of behaving. Imagery transformation exercises in which patients access their negative self-images and transform them into more realistic images based on the video feedback, surveys and other experiments are also helpful (Hackmann, 1999).

Dealing with Anticipatory and Post-event Processing

The negatively biased pre- and post-event processing that is so characteristic of social phobia is also targeted in treatment. First, patients are helped to identify particular ways in which they think and behave before and after feared social events. The advantages and disadvantages of their anticipatory and post-event processing are discussed in detail, with the aim of establishing that the disadvantages predominate. The patient is then encouraged to experiment with banning these activities. Of course, sometimes patients indicate that they think preparation before an event is helpful. For formal presentations, this may well be true. However, most patients over-prepare and as a consequence find themselves trying to follow an exceptionally rigid script. To determine whether this is the case, behavioural experiments in which the amount of preparation is substantially reduced are used. Asking patients in a therapy session to speak off the cuff immediately after being given a topic such as "The advantages and disadvantages of the death penalty" or "Has Blair/Clinton been a good prime minister/president?" can be a particularly good way of doing this. For patients who initially find it difficult to ban their "post-mortems", shifting to a field perspective in the post-mortem, specifically focusing on information that may be inconsistent with their negative self-image and imaging themselves as they have appeared on therapy videos can be a helpful intermediate step.

Dealing with Assumptions

Excessively high standards of social behaviour and conditional assumptions about the consequences of behaving/appearing in a particular way are best dealt with by the bandwidth exercises and other behavioural experiments already outlined. Such manoeuvres often also change unconditional assumptions such as "I am weird/unlikeable". However, for some people these assumptions require additional cognitive manoeuvres, many of which were originally devised for the treatment of depression (Beck, Shaw, Rush, & Emery, 1979; Burns, 1980; Beck, 1995) or low self-esteem (Fennell, 1999).

Many negative self-beliefs are vague and poorly defined, and this is one reason why they persist. With this point in mind, it is often useful to start by asking patients to operationalize their negative self-belief before looking for evidence for and against it. For example, when challenging a belief such as, "I am weird" or "I am unlikeable", the therapist would start by asking the patient to list all the observable characteristics that could indicate that someone is unlikeable/weird and the converse. Once a full range of characteristics has been elicited, patients are encouraged to rate themselves and other people they know in terms of the extent to which they have each characteristic. Often, this helps patients see that they are not uniquely worse than others on the negative characteristics and they have many signs of being respected/likeable.

Of course, patients are prone to discount information that contradicts their negative self-beliefs. A particularly good way of circumventing this problem is Christine Padesky's Prejudice Model in which patients are asked to consider their negative beliefs as prejudices against themselves that are maintained by biases that are similar to those involved in the maintenance of other common prejudices (e.g., racial and sexual prejudices). Examples of such biases include: discounting, viewing as an exception, and ignoring evidence that is inconsistent with the prejudice. To help patients overcome such biases with respect to themselves, they are encouraged to keep a positive data log in which any event that *could* be seen as contradicting their negative self-belief is recorded. This technique can lead to a rapid accumulation of contrary data. Identifying early events and images that might explain how a negative self-belief arose can also be helpful, as are continua techniques for breaking down "all or nothing thinking". Finally, it is important for therapists to remember, and help patients to discover, that occasional negative responses from other people may have been triggered by the patient's safety behaviours, rather than being an indication that the other people view the patient as intrinsically unlikeable/unacceptable.

EFFECTIVENESS OF THE COGNITIVE TREATMENT

In order to obtain a preliminary estimate of the effectiveness of our theory-derived cognitive treatment, 15 consecutively referred patients with social phobia were given up to 16 sessions of treatment (Clark, 1999). The overall improvement

was substantial. For example, on the Fear of Negative Evaluation Scale (Watson & Friend, 1969), there was a mean improvement of 11 points at post-treatment and 15 points at follow-up, with pre-post effect sizes being 2.7 and 3.7 respectively. These promising, preliminary results are now being followed by several controlled trials, the results of which are eagerly awaited. In the meantime, therapy experiments have confirmed the effectiveness of several key procedures in the overall treatment programme. Dropping safety behaviours (Wells et al., 1995) and shifting to externally focused attention (Wells & Papageorgiou, 1998) have both been shown to enhance the effectiveness of exposure to feared social situations. In addition, Harvey, Clark, Ehlers, and Rapee (2000) have shown that video feedback is more effective in correcting distorted self-impressions if preceded by the cognitive preparation outlined above.

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