4

Anxiety Disorders, Metacognition, and Change

Adrian Wells

Difficulties and roadblocks in cognitive therapy are numerous in typology and have multiple potential causes. Roadblocks can present as forms of resistance (Dowd & Seibel, 1990; Liotti, 1987; Mahoney, 1988), a term that has been used as a general rubric for the different forms of noncompliance or patient opposition to therapists (e.g., Newman, 1994) and that includes behaviors as diverse as avoidance, noncompliance with homework, and lack of motivation. The source of resistance has been conceptualized in terms of internal cognitive processes such as the inherent stability of meaning structures, the functional significance of elements of pathology that confer some advantage for the individual, cognitive and behavioral coping processes that are counterproductive, and elements of personality disturbance (Freeman & Jackson, 1998; Leahy, 1999; Liotti, 1987; Wells, 1997). Freeman and Jackson (1998) suggest that noncompliance or resistance in the context of treating personality disorder can be viewed in terms of four areas of impediments to therapy: patient factors, diagnostic factors, environmental factors, and therapist factors. *Patient factors* are those that are specific to an individual, such as negative cognition concerning previous failed therapy, secondary gain, and poor self-monitoring capabilities. *Disorder-* or *problem-linked factors* include patient rigidity, medical complications, and excessive dependence. *Environmental factors* include significant others who may sabotage therapy through overt or covert interventions and reinforcement of pathology through compensation. Examples of *therapist factors* are lack of therapist skill, of congruency between therapist and patient attitudes, and of col-

laboration and a good working alliance. Leahy (2001, 2002) has contributed significantly to the analysis of resistance and proposes a multidimensional model in which resistance occurs due to validation demands, self-consistency, schematic processing, emotional processing, moralistic thinking, victim roles, risk aversion, and self-handicapping.

The multiplicity in form of roadblocks and the mechanisms underlying them is compounded further by a consideration of the mechanics and dynamics of cognitive-affective change in cognitive therapy. A theme of this chapter is that roadblocks are often the result of inadequate specification of the internal cognitive and behavioral factors that lead to persistence of psychological dysfunction. On a theoretical information processing level, we know little about how an individual's cognitive system regulates and modifies its own content and organization. This lack of knowledge has a general impact on therapeutic efficiency, as the basic techniques used are not derived from a model of how or what it takes to change cognition. On a more applied level, roadblocks in treatment arise as a function of self-regulation strategies executed by patients. An important subset of self-regulation is coping that is used by anxious patients to avoid or minimize danger to the self.

THE SELF-REGULATORY EXECUTIVE FUNCTION MODEL, METACOGNITION, AND COGNITIVE CHANGE PROCESSES

What are the internal cognitive computations required to establish and maintain cognitive-affective change in psychological disorder? Although this is an important question and although the answer is fundamental to the nature and conduct of cognitive therapy, most of the existing models of disorder do not provide an answer. In order to answer this question, models of psychopathology are required that specify in detail the internal information processing mechanisms and processes that support cognitive modification. For instance, what are the cognitive and behavioral operations that lead to a revision of beliefs? Failure to understand the information processing mechanisms that support cognitive change and failure to modify mechanisms that maintain disorder can lead to roadblocks in treatment.

The Self-Regulatory Executive Function (S-REF) model of emotional disorder (Wells, 2000; Wells & Matthews, 1994, 1996), provides a cognitive framework for understanding how multiple levels and components of cognition and behavior interact dynamically in the persistence and modification of disorder. Psychological disturbance is equated with the activation of a generic cognitive-attentional syndrome, a marker for which is inflexible self-focused attention. This syndrome consists of perseverative forms of processing in the form of worry/rumination, activation of negative self-beliefs, attentional strategies of threat monitoring, and coping behaviors

that fail to restructure maladaptive beliefs. This configuration derives predominantly from the person's metacognitive beliefs that specify the use of perseveration, threat monitoring, and certain thought control strategies as predominant modes of coping. These beliefs exist as implicit plans ("programs") that guide processing and as explicit declarative beliefs that are amenable to verbal report (e.g., "Worrying about what might happen means I will be prepared").

Content-specific metacognitions may also be identified in specific disorders, such as generalized anxiety disorder, obsessive–compulsive disorder, and depression. According to the S-REF model, cognitive and behavioral responses of the individual produce a range of consequences in parallel that affect both lower (reflexive) and higher (knowledge, beliefs) levels of cognition. Furthermore, the type of thinking and coping strategies adopted by patients may divert resources away from the cognitive operations required to modify cognition itself. For instance, a distinction has been made between two different *modes* of cognition that have implications for cognitive change processes (Wells, 2000). Blocks to cognitive modification occur when therapy is unable to establish a metacognitive mode of processing. There are also dynamic factors involving coping that perpetuate dysfunction. Some internally directed coping strategies backfire and maintain negative beliefs or disrupt normal self-regulation. For example, coping with anxiety by suppressing disturbing thoughts can lead to a disturbance of mental control (Purdon, 1999; Wegner, 1989), and the use of worry as a coping style appears to incubate intrusive images and posttraumatic stress disorder (PTSD) following stress (Holeva, Tarrier, & Wells, 2001; Wells & Papageorgiou, 1995). Some varieties of coping involve unhelpful patterns of interaction with the external environment. Avoidance of feared situations in anxiety disorders contributes to failure to discover that situations are not dangerous, and more subtle forms of safety behavior, such as avoiding self-disclosure in social phobia, can negatively bias the reactions of others, leading to negative cycles of social interaction.

Because the S-REF model provides an account of the mechanisms and dynamics of cognitive stasis and modification, it provides a framework that augments our understanding of blocks to therapeutic change. The implication for the process of overcoming therapeutic blocks is that metacognitive beliefs should be explored and challenged as a source of maladaptive coping strategies. For instance, patients may be unable to discontinue negative ruminative thinking styles because of beliefs about the dangers of doing so. Coping strategies such as worry/rumination, threat monitoring, thought control, and avoidance should be specifically targeted for modification, and the reduction of these strategies should facilitate cognitive modification. Unrealistic and inflexible standards or goals for self-regulation should be explored as a source of repeated activation of the cognitive-attention syndrome.

The model makes a distinction between two modes of processing that can have an impact on cognitive-affective change: *object mode* and *metacognitive mode*. In object mode, self-regulatory processing is dominated by plans for processing that specify that threat is objective and that the goal is to evaluate threat, to focus attention on danger, and to engage in threat-reducing strategies. The outcome of this mode of processing is the maintenance and strengthening of plans for threat appraisal and strengthening of dysfunctional beliefs. However, an alternative mode of processing is represented by the metacognitive mode, in which the plan for processing specifies that thoughts are events (not realities), that the goal is to evaluate cognition, that attention be focused on disconfirmatory information, and that worry and rumination be suspended. The outcome of this mode is modification of knowledge and the strengthening of plans for adaptive processing. Cognitive therapy can be viewed as shifting patients to a metacognitive processing mode, which is an important resource for cognitive modification. An implication for therapy is that individual differences may exist in the propensity to use and/or establish a metacognitive mode, and generally therapeutic effort should be focused on shifting to this mode early in treatment.

With this theoretical framework in mind, I now turn to a discussion of specific difficulties or blocks in treatment linked to coping strategies, perseveration (i.e., worry/rumination), and attention. Finally, some more general common issues relating to specific anxiety disorders are considered.

COPING STRATEGIES

A typical mode of coping in anxiety disorders is avoidance, which can manifest as avoidance of situations, of behaviors, and of internal events. Avoidance can block therapeutic progress in three predominant ways:

1. It prevents access to "hot cognitions" and activation of symptoms, thereby restricting assessment and case formulation.
2. Some avoidant forms of coping, particularly involving the control or concealment of anxiety symptoms, can backfire and worsen symptoms and negatively affect aspects of the external environment.
3. Avoidance prevents exposure to situations or experiences of symptoms that would provide an opportunity to disconfirm negative appraisals and beliefs.

The patient with panic disorder who avoids strong emotions because of fear of loss of control and the patient with obsessive–compulsive disorder (OCD) who controls his or her stream of consciousness so as to avoid thoughts of harming another are locked into coping strategies that deny them access to experiences that can disconfirm their fears. The very act of

disclosing thoughts or discussing emotions can be enough to elicit the experience of the unwanted emotion or thought and the dangers that the patient believes are associated with such an experience. The patient chooses not to discuss these events with the therapist, denying the therapist access to valuable information that is required for eliciting appraisals and devising strategies for testing them.

Avoidant forms of coping are often motivated by fear and are associated with danger-related appraisals. In anxiety disorders avoidance can also be motivated by shame and embarrassment, in cases in which self-appraisals concern the interpretation of symptoms as unacceptable, abnormal, or aberrant in relation to some internalized social rule system. For instance, the egodystonic nature of obsessional thoughts and impulses can lead the patient with OCD to censor or sanitize descriptions of these events. The resulting lack of detail interferes with the construction of personally valid strategies of exposure to obsessions. A solution to this problem is the "normalization" and destigmatizing of obsessions at the outset of treatment.

The therapeutic situation can be contaminated by the anxious patient's coping behavior. For instance, patients with OCD may be unwilling to think about and describe obsessional thoughts, as this will lead to inflated risk of catastrophe, and the patient with social phobia will censor his or her speech or say very little so that he or she does not sound foolish to the therapist. Censorship and avoidance of this kind, if they go unchecked, will produce an incomplete formulation of the presenting problem and retard the rate of therapeutic progress.

Coping responses are often more subtle in form than overt avoidance. Patients with anxiety disorders use subtle safety behaviors (Salkovskis, 1991) to prevent feared catastrophes. Both avoidance and safety behaviors may well provide short-term relief of anxiety, but in the long term they interfere with cognitive modification. In particular, patients attribute the nonoccurrence of catastrophe to use of their behavior and fail to learn that their negative thoughts and beliefs are false. In some disorders further problems with safety behaviors exist in that these behaviors intensify negative symptoms and can contaminate situations. For example, a patient with panic disorder who misinterpreted sensations of breathlessness as a sign of suffocation prevented such a catastrophe by taking repeated deep breaths. This made him feel light-headed and, paradoxically, made his breathing seem more difficult. Further deleterious effects of safety behaviors are described in the cognitive model of social phobia (Clark & Wells, 1995). Safety behaviors often consist of saying little, asking questions rather than self-disclosing, and mentally rehearsing sentences before speaking. These behaviors increase self-consciousness, impair concentration, contribute to difficulties in speaking, and make the person with social phobia appear withdrawn or unfriendly. Safety behaviors pose blocks to therapy when they remain unmodified. Irrespective of the amount of exposure an anxious

patient receives, the commission of safety behavior during exposure prevents disconfirmation of belief in appraisals because it supports a "near miss" attribution in which the patient believes he or she managed to prevent a catastrophe this time but may not succeed in the future. Moreover, such behaviors reduce anxiety by blocking exposure to feared events, and this is a problem when the events feared are components of the anxious response itself. In behavioral terms, the safety behavior prevents full exposure so that anxiety does not habituate, and, in cognitive terms, exposure fails to provide a true test of belief because the situation is bereft of the source of threat (i.e., anxiety itself).

OVERCOMING BLOCKS TO DISCONFIRMATION

The solution to the blocks in cognitive-emotional change presented by avoidance and safety behaviors is for the therapist to spend time in the detailed analysis of the full range of avoidance and safety behaviors linked to target dysfunctional cognitions. The emphasis here is on identifying which specific behaviors are linked to each dysfunctional appraisal. Behavioral experiments will produce unambiguous disconfirmation of belief in appraisal when the correct safety behaviors are manipulated during exposure. For example, in the treatment of social phobia (Wells, 1997), patients are instructed to drop specific safety behaviors such as hiding their faces (in cases of fear of blushing) while observing the nature of other people's attention to them in feared social situations. Behavioral experiments of this kind follow the P-E-T-S protocol for effective behavioral experiments for maximizing belief change (Wells, 1997). Four stages should be distinguished in designing and implementing experiments, according to the P-E-T-S protocol.

1. In the first stage (P), which signifies *preparation*, the therapist must elicit a key target cognition and belief level, along with a detailed description of the safety behaviors used to prevent or conceal catastrophe linked to the appraisal. A cognitive rationale is then presented in the context of the active case formulation that emphasizes exposing the patient to the feared situation or stimulus while he or she performs actions that allow him or her to discover that the catastrophe predicted (in line with the negative appraisal) does not happen.

2. In the second phase (E), the patient is *exposed* to the feared situation. This situation should resemble as closely as possible the type of situation that activates the patient's fear. Approximations to the situation or stimulus may suffice as a first step, but they are not usually a complete substitute for exposure to typical situations or stimuli. In particular, the situation that activates fear may contain very specific elements, the presence or

absence of which will determine whether anxiety and negative appraisals are activated. The exposure situation must produce anxiety as this is the marker for activation of the negative appraisal and because the anxious feelings themselves are often part of the situation that is interpreted as dangerous. If anxiety is not activated, the patient can simply discount the threat value of the exposure experience, and the experiment then fails to provide a disconfirmatory learning experience.

3. The third phase (T) of the P-E-T-S protocol is the *test*, or disconfirmatory maneuver. Exposure alone is not typically sufficient to provide rapid and direct disconfirmation of negative appraisals. To achieve unambiguous disconfirmation, it is recommended that the patient perform a deliberate action that disconfirms the appraisal (or prediction). This will consist of abandoning safety behaviors and/or paradoxical strategies, such as pushing symptoms or showing feared responses, depending on the stage of treatment and the nature of the presenting problem. For instance, in the treatment of social phobia a patient may be asked to focus externally on the reactions of others while deliberately showing signs of performance failure, such as spilling a drink. In the treatment of panic disorder the disconfirmatory maneuver often consists of pushing symptoms to discover that physical or psychosocial catastrophe does not occur.

4. The final stage of behavioral experiments is the *summarize* (S) phase, in which the results of the experiment are reviewed in terms of the patient's belief or prediction. Belief level is rerated, experimental results are discussed in the context of the case formulation, and the experiment is modified or finely tuned prior to further implementation.

Empirical studies support the usefulness of manipulating in-situation coping behaviors and attention during exposure. In a study of patients with social phobia (Wells et al., 1995), brief exposure and the dropping of safety behavior within the context of a rationale emphasizing disconfirmatory processing were more effective than brief exposure alone with a habituation rationale in reducing in-situation anxiety and negative beliefs. Similar results were obtained in a subsequent study of panic and agoraphobia (Salkovskis, Clark, Hackmann, Wells, & Gelder, 1999). Another study of patients with social phobia also supports the view that disconfirmatory maneuvers that focus attention on belief-incongruent information (external attention focus) appear to produce stronger effects than brief exposure alone (Wells & Papageorgiou, 1998a).

THE PROBLEM OF LOW CONGRUENCE (VALIDITY)

One of the factors that can block the effective implementation of behavioral experiments is lack of congruence between the feared situation and the

situation used to test the negative belief. In panic disorder, the symptoms induced in the therapist's office may not resemble closely enough the symptoms that are normally catastrophically misinterpreted. In social phobia, specific features of the feared situation often make the difference between whether or not anxiety is activated. For example, a patient at our clinic reported that reading in front of a group of five or more people always made him feel anxious. However, it was not possible to activate this anxiety by mock-up group reading tasks in therapy. After several failed attempts and further detailed assessment of a recent episode in which he felt anxious in his work situation, the patient realized that he felt anxious only in a confined room when the audience sat close to him. Accordingly, modifications were made to the mock reading task that were successful in eliciting anxiety and activating his belief that he "looked anxious." Video feedback of his performance was used to challenge his erroneous belief.

The importance of precision in determining whether or not disconfirmation occurs is evident in obsessive–compulsive disorder. When challenging beliefs about intrusive thoughts in metacognitive focused therapy (Wells, 1997, 2000), exposure and response prevention experiments are used in which obsessional thoughts are deliberately invoked and patients are asked to refrain from neutralizing behaviors. This procedure is done to test predictions concerning the power and influence of thinking, such as the belief that having mental images of the devil will lead to specific negative events unless these are prevented by engaging in special rituals. Although these experiments are effective in reducing belief in the power of such thoughts, a residual belief level may persist despite further efforts at verbal and behavioral reattribution. A source of this problem is failure to fully induce obsessional experiences that faithfully reproduce the nature of spontaneous experiences outside of therapy sessions. An illustration from our clinic will help in demonstrating this point. A patient troubled by thoughts that she would inadvertently transform her personality by having mental images of a well-known serial killer stated that inducing the thoughts was not the same as having the thoughts spontaneously during her normal routine. Rather than relying on constructing an experiment around the vagaries of the time at which the next spontaneous thought would occur and on her poor ability to ban neutralizing, a detailed analysis of a recent experience of a spontaneous obsessional thought was undertaken. The aim was to determine what was special about a spontaneous thought. This explored the nature of the thought, such as its size, color, shape, vividness, and the nature and bodily location of feelings that accompanied it. It was discovered that it was not only the image of the serial killer but also the co-occurrence of a specific sensation of "weightlessness" in the pit of the stomach that determined whether or not the thought would lead to the feared transformation of personality. Taking account of this discovery, exposure and response prevention experiments were refined and repeated for both deliberate and spontaneous thought occurrences in which the patient

was instructed to focus on and enhance the bodily sensation in association with the thought.

PERSEVERATION (WORRY AND RUMINATION)

Perseveration refers to repetitive and often purposeful occurrences of thought and/or behavior. Anxiety disorders are characterized, at least in part, by such activity, which often has a brooding quality. In generalized anxiety disorder (GAD), a predominant feature is excessive and uncontrollable worrying about a number of topics; in OCD it involves repetitive thoughts or actions; PTSD involves preoccupation with traumatic events; and social phobia involves a tendency to worry about forthcoming social encounters and to dwell on memories of one's performance in difficult social situations. Perseveration of this kind can be difficult to bring under control, and if it goes unchecked it can be a source of roadblocks in cognitive therapy.

We saw earlier how perseveration has been viewed as a component of a cognitive-attentional syndrome that underlies vulnerability to emotional disorder and that is involved in disorder maintenance (Wells, 2000; Wells & Matthews, 1994). Evidence suggests that worry can have a negative effect on emotional processing following stress and trauma (Butler, Wells, & Dewick, 1995; Wells & Papageorgiou, 1995). The tendency to use worry to control intrusive thoughts is predictive of PTSD following road traffic accidents in prospective analyses (Holeva, Tarrier, & Wells, 2001). More generally, brief periods of worrying appear to be associated with an increase in thought intrusions (Borkovec, Robinson, Pruzinsky, & DePree, 1983).

Worrying contributes to intrusive thoughts, and perseveration is problematic because it focuses attention on negative information and negates the consolidation of positive information necessary for belief change. As the empirical evidence suggests, it also appears to lead to an amplification of stress responses under some circumstances. Progress in individual treatment sessions can be limited if patients engage in worry processes following sessions. Worry or postmortem processing involving the selective focusing on negative feelings or events has the capacity to change the meaning of experiences such that potentially positive and reconstructive experiences become negative events. This type of thinking style should be identified and targeted early in treatment. The therapist should review with the patient the advantages and disadvantages of worry, reinforce the disadvantages, challenge beliefs about the advantages, and then ask the patient to ban the activity.

Acute worry episodes in which the content of worrying or catastrophizing shifts from session to session are problematic when the patient's agenda becomes dominated by the need to resolve the current worry crisis

and/or when the treatment session readily dissolves into a search for reassurances. It is important for the therapist to move away from challenging the content of worries and to intervene at the process and metacognitive level. An effective strategy is the worry postponement technique, a form of which was first introduced by Borkovec and colleagues (Borkovec, Wilkinson, Folensbee, & Lerman, 1983) and later modified and developed as a behavioral experiment (Wells, 1997). Here, patients are instructed to notice themselves worrying the next time a worry episode is activated and to disengage from the worry process by setting aside a time later in the day as a designated worry time, during which he or she will spend 15 minutes worrying with a clear onset and offset time for worrying. The worry time should be used only if the patient feels that it is necessary. Typically patients forget to use the worry time or feel that it is not necessary. This technique can be presented as a behavioral experiment to challenge beliefs about the uncontrollability of worry. The technique also has the advantage of taking maladaptive worry processes off-line, thereby minimizing the negative consequences of worrying. A further technique is training in detached mindfulness (Wells & Matthews, 1994). Not to be confused with mindfulness meditation (e.g., Kabat-Zinn, 1990), detached mindfulness is simply an instruction to be aware of engaging in worry or rumination, with the further instruction to watch such thoughts in a detached way without engaging with them. The aim is to train patents in alternative styles of responding that can be used to override cyclical negative thinking patterns. All of these strategies may fail if the patient is not motivated to give up negative and perseverative forms of thinking. To understand such motivational blocks, it is necessary to turn to analyzing the individual's metacognitive beliefs.

ATTENTIONAL STRATEGIES

The attentional strategies used by patients can block therapeutic change when they focus processing resources on information that is consistent with negative appraisals and beliefs. In the S-REF model, psychopathology is considered to be associated with the preponderance of two attentional styles that either coexist or alternate. These styles are inflexible self-focused attention, and hypervigilance, or monitoring for threat. Self-focus and threat monitoring are often the same strategy, as, for instance, in cases of panic disorder, health anxiety, social phobia, and obsessional disorder in which internal cognitions and somatic events are feared. In PTSD, threat monitoring may take the form of hypervigilance for environmental stimuli that resemble those encountered during the trauma, such as scanning the environment for particular types of people. These attentional strategies may be triggered by lower level reflexive cognitive activity and/or be sustained as a component of active coping. An example of the latter is seen in

a patient with health anxiety who believes that it is advantageous to scan the body for symptoms so that untoward symptoms can be detected early and lifesaving help obtained. The problem with attentional strategies of self-focus and threat monitoring is that they fuel negative appraisals and perpetuate the perception of danger and threat. In PTSD, threat monitoring may actually strengthen a cognitive configuration that maintains the perception of danger. and contributes to failed emotional processing (Wells, 2000; Wells & Sembi, 2001).

Attentional strategies can produce mixed effects. Distraction, when used by a patient to prevent catastrophe, is a safety behavior that blocks effective belief change. In the exposure literature, distraction following exposure has been associated with a return of fear following exposure (Grayson, Foa, & Steketee, 1982; Sartory, Rachman, & Grey, 1982). However, external attentional focusing on disconfirmatory information has been shown to enhance the effects of brief exposure in patients with social phobia (Wells & Papageorgiou, 1998b). Difficulties are likely to be encountered in treatment when attentional strategies are used in a way that prevents unambiguous disconfirmation of negative beliefs, such as their use as an anxiety-management or avoidance strategy when anxiety symptoms themselves are a source of fear. Nevertheless, attentional manipulations may be useful if they interrupt perseverative forms of inflexible thinking or self-focus, and for this purpose a specific technique of attention training has been developed (Wells, 1990). It should be noted, however, that this technique is not intended to be practiced as a symptom-control procedure but that it provides a means of restoring executive control over processing. The potential blocks in treatment generated by attentional strategies can be overcome by using strategies that focus attention on disconfirmatory information. The effects of procedures such as distraction may be used as evidence to challenge specific beliefs, but their use as symptom-control strategies when symptoms themselves are feared should be avoided or followed up by techniques that challenge negative appraisals.

COMMON BLOCKS IN SPECIFIC ANXIETY DISORDERS

Panic Disorder

The goal of cognitive therapy for panic disorder is the elimination of belief in catastrophic misinterpretations of symptoms. This goal is achieved through behavioral experiments that utilize symptom induction. An initial block of treatment can be the patient's level of disease conviction in which panic or anxiety symptoms are seen as being due to an organic disease event though no disease is present. In this instance socialization may take longer than usual, and the therapist should aim to shift the patient to a psychological model of the presenting problem. In order to do so, several panic

attacks should be reviewed in detail and the vicious-cycle model drawn out in an attempt to find exceptions to the psychological model. The failure to find exceptions is used as preliminary evidence for a psychological model. Behavioral experiments should be used early on as socialization strategies. Typical experiments include body-focusing instructions and reading paired-associate word lists (e.g., breathless–suffocate, chest tight–heart attack, dizziness–fainting, numbness–stroke) to show how specific types of thinking can elicit anxiety and/or affect bodily sensations. Experiments illustrating the model also consist of manipulating safety behaviors. For instance, if the patient copes with fear of suffocation by engaging in deep breathing, the role of such safety behaviors on symptom experiences can be demonstrated by the deliberate intensification of deep breathing in the session.

A damaging block in the conceptualization and treatment of panic disorder is failure to elicit catastrophic misinterpretations. This block often occurs when avoidance is severe, such that the patient rarely experiences anxiety, and therefore access to hot cognitions is diminished. This pattern occurs when patients show moderate to severe levels of long-standing agoraphobic avoidance. The solution is the use of behavioral exposure tests to activate hot cognitions. The therapist should use the nature of avoidance as a marker for situations that will activate hot cognitions. A proportion of early treatment sessions may then be devoted to interoceptive and/or situational exposure in which the therapist probes for the content of misinterpretations. Questioning specifically the *worst consequences* that could happen in a situation when anxiety is activated provides a means of determining the content of catastrophic misinterpretations.

A further factor that can block access to catastrophic misinterpretations that drive panic disorder is the repeated articulation of secondary escape or avoidance-related cognitions. For instance, when asked, "What thought went through your mind when you noticed your heart beating fast and sensations of breathlessness?" a patient replied, "I thought I had to get out of the supermarket." In this type of scenario, it is useful for the therapist to question specifically what the patient believes would be the consequences of failure to escape or to avoid if such failure were accompanied by an intensification of anxious symptoms (e.g., "If you were unable to escape and your anxiety got worse, what is the worst thing that could happen?").

Behavioral experiments aimed at challenging catastrophic misinterpretations often involve exposure to bodily symptoms. The induction of panicogenic symptoms is highly aversive and anxiety provoking for patients and may therefore be resisted. When this situation arises, the therapist can take a graded approach to symptom induction. For example, the therapist can ask the patient to begin by taking three deep breaths, then five, then seven, and so on, in an experiment using hyperventilation provocation. As a further strategy, the therapist can perform the experiment with the patient or start the symptom induction before the patent does so that

the patient may witness any catastrophe happening to the therapist first and can decide to discontinue the procedure before a similar thing happens to him or her. Resistance to behavioral experiments should be discussed in terms of the case formulation, and the therapist must emphasize that resistance will contribute to a failure to disconfirm negative misinterpretations that are the engine driving panic.

A final specific type of block that I will mention here is the presence of panic attacks in the apparent absence of catastrophic misinterpretations. Assuming biological mediation has been ruled out, this situation arises during the course of treatment, in cases in which specific misinterpretations—such as belief in collapsing, in having a heart attack, or in going crazy—have been successfully challenged but the patient still finds bodily sensations and anxiety intolerable. Here the catastrophic misinterpretation appears absent, but it is most likely that the misinterpretation exists in a slightly different form. More specifically, the misinterpretation is often the idea that the anxious feelings or symptoms will never end, or the misinterpretation may occur in the form of a mental image or memory of a previous panic attack. In these circumstances, it is necessary to challenge the belief in the permanence of symptoms and anxiety and to use imagery modification strategies and/or techniques focused on reinterpreting memories of anxious experiences. Interoceptive exposure experiments may be used to challenge belief in the permanence of symptoms and to build a greater tolerance of symptom experiences.

Health Anxiety

Engagement difficulties are common in individuals presenting with health anxiety. The patient believes strongly that he or she is physically ill and that psychological processes are not involved in the problem. Treatment can be viewed as extended socialization in which the therapist aims to strengthen an alternative psychological explanation of the patient's problem. The desirable end point is the acquisition by the patient of the belief that the problem is one of worry about health rather than a problem of suffering from a life-threatening disease process. Worry about health should be reduced in its frequency and severity, and general disease conviction should be challenged so that the patient no longer believes that it is likely that he or she is physically ill. Motivation to persist with psychological treatment is low when patients perceive treatment as inappropriate, as in some cases of hypochondriasis in which the patient believes the problem is physical rather than psychological.

Motivation and engagement problems can be tackled with a number of strategies. First, treatment should be presented as a no-lose experiment. This can be done by discussing the length of time the patient has been pursuing a medical explanation for the problem and how well this pursuit has

solved the problem. It should be pointed out, when appropriate, that seeking medical treatment has not resolved the problem and that the patient has nothing to lose by engaging in an alternative psychological treatment approach. Moreover, the patient should be told that, if the psychological approach does not work, he or she can then return to the previous strategy as a means of finding the solution. A case formulation that offers an alternative (no-disease) explanation of the patient's symptoms offers a powerful alternative perspective (e.g., Wells, 1997). The role of body checking, body-focused attention, guarded movements, and other maladaptive coping behaviors (e.g., use of alcohol, excessive exercise, avoiding food) in exacerbating symptoms should be illustrated early in socialization.

Motivation may be increased by undertaking an advantages–disadvantage analysis of cognitive therapy. The disadvantages should be challenged and the advantages increased in scope. Gaining evidence for the cognitive formulation early on in treatment is essential. Evidence may be obtained through symptom monitoring, in which patterns in the occurrence of feared symptoms can be observed and an alternative explanation sought. Manipulation of the intensity of body checking and maladaptive coping behaviors should also be used to demonstrate the effect of behaviors on symptom preoccupation and intensity when possible. Early and effective intervention targeted at symptom relief can be used as evidence of the validity of the cognitive approach. For example, with the patient who presents with health anxiety and panic attacks, the intervention may initially focus on the conceptualization and treatment of panic attacks using a panic model before concentrating on remaining disease conviction using a health anxiety formulation.

In some cases health anxiety and associated disease conviction offer a number of advantages for the sufferer. They may influence the nature of personal relationships and provide either a strategy for avoiding intimacy or a vehicle for the expression of dependency. In a case reported by Wells and Dattilio (1992), a patient with health anxiety showed a negative response (strengthening of cognitions) to cognitive restructuring strategies aimed at directly challenging his disease conviction, whereas this response was not shown to a relaxation strategy. Eventually the patient dropped out of treatment, after disclosing that his health anxiety and worry protected him from engaging in exhibitionistic behaviors and that, without these constraints, he feared that he would descend into sexual depravity.

Generalized Anxiety Disorder

Until recently cognitive models of the factors that underlie uncontrollable worry, the characteristic feature of GAD, have not been available. The absence of such has been a conceptual block to developing effective treat-

ment. It has also meant that patients continue to engage in maladaptive worry processes despite the therapist's best effort to challenge the content and validity of individual worries. In some more severe presentations, patients present with patterns of repeated worrying that change in content, and the worrying propensity does not appear to decrease across treatment sessions. It has been argued that this problem emerges from a failure to modify the factors underlying repetitive negative thinking, that is, worry (Wells, 1995, 1999). A case conceptualization needs to specify the individual's beliefs that lead to worrying as a predominant means of dealing with threat. The metacognitive model of GAD (Wells, 1995, 1997) provides a basis for such a conceptualization and treatment.

The metacognitive-focused cognitive model and treatment (Wells, 1995, 1997) emphasizes the role of patients' erroneous negative and positive beliefs about worry in the persistence of the problem. This model is supported by empirical evidence from a range of sources (e.g., Cartwright-Hatton & Wells, 1997; Wells & Carter, 1999, 2001; Wells & Papageorgiou, 1998a).

One of the main blocks for the therapist aiming to implement metacognitive-focused cognitive therapy for the first time is the conceptual shift that is required to deal with beliefs about worry, rather than dealing with the content of individual worries directly. It is easy for the therapist to drift into focusing on individual worries and to challenge their content, even though the focus should initially be on challenging beliefs about the uncontrollability and dangers of worrying and then on challenging positive beliefs about the usefulness of worrying as a coping strategy. It is useful here for the therapist to remind him- or herself of the question, "How much of a problem would my patient have if he or she believed that worrying was normal, controllable, and harmless and did not use worry as a predominant means of coping?" Instruments such as the Generalized Anxiety Disorder scale (GADS; Wells, 1997) may be administered to patients each session and used as a source of focal metacognitions that should be targeted in treatment in order to reduce therapeutic drift.

Social Phobia

Three common blocks in the treatment of social phobia are considered in this section: (1) the contaminating effect of social anxiety on the therapeutic relationship; (2) difficulty in discontinuing worry/rumination-based thinking prior to or after social situations; and (3) inflexible and locked-in self-consciousness.

The therapeutic situation can be contaminated by social anxiety. In particular, patients may avoid eye contact with the therapist, may give short yes/no answers, or may control their speech and behavior in an attempt to avoid feared social responses such as babbling, blushing, or ap-

pearing foolish. Although distracting for the therapist, responses of this kind are typically manifestations of dysfunctional avoidance and safety behaviors. The therapist may feel uncomfortable addressing these behaviors, but it is imperative that material from the therapeutic encounter is overtly analyzed and incorporated into the case conceptualization.

A further contaminating mechanism in therapy is the therapist's own level of social anxiety or social-evaluative concerns. If the therapist is high in fear of negative evaluation, he or she may find it difficult to suggest and model behavioral experiments involving the deliberate commission of embarrassing or failed performance in public. This reluctance can generate a significant obstacle to therapeutic progress. In these circumstances the therapist should attempt to isolate and challenge his or her own cognitions and predictions through the personal practice of treatment strategies.

A small number of patients report considerable difficulty in stopping worry in the form of anticipatory processing prior to social situations or postmortem processing afterward, and for some patients the worry is worse than the actual exposure to the feared social situation. Ruminatory responses of this kind can transform the meaning of events and strengthen negative self-processing. The targeting and modification of rumination-based processing early in treatment has contributed to the development of a brief treatment for social phobia (Wells & Papageorgiou, 2001). Rumination tendencies persist when patients continue to believe that worry/rumination is advantageous and allows them to avoid social catastrophe or to "save face." The problem can be addressed by reviewing with the patient the advantages and disadvantages of worry. The disadvantages should be reinforced and, when necessary, an alternative to rumination devised. Alternatives to anticipatory worry include worry postponement, reducing the amount of rehearsal before social encounters, and task focusing instead of self-focusing. Techniques for dealing with postmortem processing include shifting perspective in the memory of the social situation such that patients are asked to recall what other people did in the social situation rather than recalling how they themselves felt and acted. In this way it becomes apparent that information concerning other people's reactions is sketchy and that recall is biased toward the negative sense of self. The therapist can then examine the potentially unhelpful effects of such selective biased processing on the patients' self-concept, and, having established that the postmortem is unhelpful, ask patients to renew efforts to ban it. Alternatives to the postmortem may also be introduced, such as keeping a positive social-data log after events instead of the negative postmortem and postponing the postmortem until the following day, engaging in it then only if they feel they must. When worry persists, the therapist should assess whether specific metacognitive beliefs are driving the process. Such beliefs are usually uncovered while

reviewing the advantages of rumination/worry, and they may need to be subjected to a more sustained and broader use of verbal and behavioral reattribution techniques directed at weakening them.

The final block to be considered in this section is that presented by inflexible self-consciousness. A cognitive therapist under my supervision discussed a patient who could give a detailed description of the cognitive model and who clearly understood the importance of dropping safety behaviors and shifting to external-focused attention during exposure to social situations. However, the patient repeatedly failed to achieve this goal. This pattern is apparent in a small number of patients, and I have observed two different factors that appear to account for the problem. The first is a preoccupation with performance and "doing things right," such that dropping safety behaviors becomes an "all or nothing" task, which itself interferes with shifting attention to external disconfirmatory information and reinforces self-focus. Normally, the coupling of external-attention instructions with instructions to drop specific safety behaviors counteracts the problem of self-focus caused by monitoring and changing safety behaviors. This potential block can be resolved by placing more emphasis on shifting patients to external attention than on dropping safety behaviors. The second factor that appears to contribute to failure in reducing self-focus is an inability to formulate specific strategies for anchoring attention on aspects of the external environment. To solve this problem, a range of strategies can be suggested and practiced in session, such as focusing on the number of people in the social environment, evaluating whether other people have a good dress sense, trying to work out whether other people look happy or sad, and focusing on how many people are paying attention to the patient. In brief cognitive therapy (Wells & Papageorgiou, 2001), we introduced the strategy of instructing patients to focus externally on features of the nonsocial environment when not in feared social situations as additional practice in flexible attentional responding. These strategies must be followed by techniques focused on modifying both specific negative predictions about the consequences of failed social performance and the distorted self-image that patients have of themselves when anxious. The strategies are not intended to be used as symptom-control strategies that could serve as additional safety behaviors.

Obsessive–Compulsive Disorder

Cognitive therapy for OCD typically consists of exposure to obsessional thoughts and impulses combined with ritual prevention. This strategy is intended to facilitate habituation and can be configured as a behavioral experiment for challenging negative beliefs about the power and consequences of obsessions, impulses, and feelings.

Failure to Access Obsessional Thoughts

Obsessional thoughts are experienced as repugnant by the patient. Thoughts of committing violent and obscene sexual acts and similar thoughts are associated with feelings of guilt, shame, fear, and embarrassment. As a result patients are often reluctant to disclose the full extent of their obsessional thoughts, images, and impulses. Censorship of this kind retards therapeutic progress and, in extremes, renders impossible the design and implementation of exposure and response prevention experiments and other reattribution procedures. To reduce this complication, the therapist should normalize patient experiences and facilitate disclosure at the outset of treatment. This can be achieved by describing the types of obsessional thoughts that patients often present and introducing the idea that it is normal to feel uncomfortable disclosing full details of obsessional thoughts. It can be stressed that obsessions are commonly occurring phenomena and that more than 80% of people have them. In some cases it may be helpful for the therapist to disclose the nature of his or her own obsessional thoughts and impulses.

A patient may not describe obsessional thoughts because he or she is engaged in chronic cognitive avoidance. In some instances, the very act of disclosure can be perceived as giving the obsessional thought additional power to affect outcomes. Under these circumstances, the therapist should ensure that the patient understands the formulation of the problem in terms of dysfunctional beliefs about the power of thoughts and the role of neutralizing and avoidance in preventing the falsification of such beliefs. Beliefs about thoughts may be elicited without discovering the details of the obsession, and preliminary verbal reattribution strategies should then be implemented to weaken such beliefs as a prerequisite to accessing of obsessions and the implementation of exposure and response prevention experiments.

Inability to Experimentally Falsify Predictions

Difficulties arise in the experimental test of beliefs about obsessions when the time course of any predicted negative outcomes is indeterminate or distant. For example, a patient believed that having thoughts about an unlikable person while performing an action would make him unlikable unless actions were repeated with images of likable people in mind. When questioned about how long this process of personal transformation would take, he replied that it could take many years. To overcome this problem, treatment was shifted to focus on another obsession that had a shorter predicted time course but that was linked to the same belief about the power of thinking. In addition (and when this cannot be achieved), verbal reattribution strategies were used to challenge the belief. These strategies

included questioning the evidence for the belief, questioning the mechanism by which thoughts can influence events, and taking a historical perspective and questioning why, after a long period of OCD, the catastrophe had not yet occurred. Behavioral experiments involving the attempted causation of positive outcomes through the power of thought are also useful in challenging beliefs about the power of thinking (e.g., try to win the lottery by thinking about winning).

Beliefs about obsessions and rituals are resistant to modification when they are a part of an extensive and elaborate belief system—for example, social or religious beliefs. Some behaviors and interpretations of cognitive events may be sanctioned and reinforced by members of the patient's family or community. Such attitudes can work against the best therapeutic efforts to challenge beliefs. In these circumstances the therapist may rely more on a habituation model rather than focusing explicitly on challenging beliefs about obsessions. A useful strategy is to question how other people within the community who have similar beliefs deal with obsessional thoughts, with the focus on changing responses to intrusions and on learning that such intrusions do not have to be acted on by sustained neutralizing.

Failure and Resistance in Exposure and Response Prevention

In some cases, habituation, adaptive learning, and modification of negative predictions do not occur because the patient is continuing to engage in subtle avoidance, neutralizing, and safety behaviors. In one case, the belief that having an obsessional thought would lead to loss of control was successfully reduced to 15% through exposure and response prevention experiments, but further reductions seemed untenable. The patient reported that he was not using any neutralizing responses and that he was deliberately holding in mind an image of strangling the therapist. However, detailed questioning revealed that he was not paying full attention to the image because he believed that giving full attention to it would lead to commission of the imagined action. It is necessary to analyze in fine detail the cognitive, attentional, and behavioral strategies that patients use during exposure and response prevention and to guide attention and modify behavior in a way that maximizes cognitive-affective change.

When patients refuse to engage in exposure, the therapist should initially consider less anxiety-provoking exposure sessions in which exposure occurs to a thought or contaminant that provokes modest rather than extreme anxiety. A clearly structured approach to exposure during therapy sessions is required as a prerequisite to exposure work for homework. The responsibility for devising exposure and response prevention experiments should be a shared responsibility, with the emphasis for the design of such experiments gradually shifted onto the patient as treatment progresses. Clear presentation

of the case formulation and treatment rationale provides a means of facilitating engagement with exposure tasks, and motivational techniques may be used to increase patient readiness to accept the intervention.

SUMMARY

Many different types of blocks can be encountered in cognitive therapy for anxiety disorders. This chapter has focused on the blocks that emerge from a lack of detailed specification in theory of cognitive change processes, an area that requires greater attention and formulation. Internal dynamic and metacognitive factors that contribute blocks to cognitive modification were discussed in the context of the S-REF model of disorder. This model identifies different modes of processing, metacognitive beliefs, maladaptive coping strategies, perseveration, and attentional factors as an influence on therapeutic change processes. It was suggested that many types of blocks can be viewed as the consequence of particular self-regulation or coping strategies that remain unformulated and/or unmodified during the course of treatment. In addition, progress in the treatment of anxiety depends significantly on the therapist's ability to expose patients to stimuli or situations that resemble those that are the focus of misinterpretation. We saw how a poor level of congruence, therapist anxiety or reticence, and failure to adequately configure exposure as an unambiguous test of specific predictions can contribute blocks to cognitive modification in behavioral experiments. The P-E-T-S protocol for behavioral experiments was described as a means of overcoming these potential difficulties. Finally, some common roadblocks in the treatment of several specific anxiety disorders and a range of solutions were examined.

REFERENCES

Borkovec, T. D., Robinson, E., Pruzinsky, T., & DePree, J. A. (1983). Preliminary exploration of worry: Some characteristics and processes. *Behaviour Research and Therapy, 21*, 9–16.

Borkovec, T. D., Wilkinson, L., Folensbee, R., & Lerman, C. (1983). Stimulus control applications to the treatment of worry. *Behaviour Research and Therapy, 21*, 247–251.

Butler, G., Wells, A., & Dewick, H. (1995). Differential effects of worry and imagery after exposure to a stressful stimulus: A pilot study. *Behavioural and Cognitive Psychotherapy, 23*, 45–56.

Cartwright-Hatton, S., & Wells, A. (1997). Beliefs about worry and intrusions: The Metacognitions Questionnaire. *Journal of Anxiety Disorders*, 11, 279–315.

Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. Heimberg, M. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment*. New York: Guilford Press.

Dowd, E. T., & Seibel, C. (1990). A cognitive theory of resistance and reactance: Implications for treatment. *Journal of Mental Health Counselling*, 12, 458–469.

Freeman, A., & Jackson, J. T. (1998). Cognitive behavioural treatment of personality disorders. In N. Tarrier, A. Wells, & G. Haddock (Eds.), *Treating complex cases: The cognitive behavioural therapy approach* (pp. 319–329). Chichester, UK: Wiley.

Grayson, J. B., Foa, E. B., & Steketee, G. J. (1982). Habituation during exposure treatment: Distraction versus attention focusing. *Behaviour Research and Therapy, 20*, 323–328.

Holeva, V., Tarrier, N. T., & Wells, A. (2001). Prevalence and predictors of acute stress disorder and PTSD following road traffic accidents: Thought control strategies and social support. *Behavior Therapy, 32*, 65–83.

Kabat-Zinn, J. (1990). *Full catastrophe living: The program of the stress reduction clinic at the University of Massachusetts Medical Center.* New York: Dell.

Leahy, R. L. (1999). Strategic self-limitation. *Journal of Cognitive Psychotherapy, 13*, 275–293.

Leahy, R. L. (2001). *Overcoming resistance in cognitive therapy.* New York: Guilford Press.

Leahy, R. L. (2002, July). *Cognitive therapy of resistance.* Workshop presented at the British Association for Behavioural and Cognitive Psychotherapies, University of Warwick.

Liotti, G. (1987). The resistance to change of cognitive structures: A counterproposal to psychoanalytic metapsychology. *Journal of Cognitive Psychotherapy, 1*, 87–104.

Mahoney, M. J. (1988). Constructive metatheory: 1. Basic features and historical foundations. *International Journal of Personal Construct Psychology, 1*, 1–35.

Newman, C. F. (1994). Understanding client resistance: Methods for enhancing motivation to change. *Cognitive and Behavioural Practice, 1*, 47–69.

Purdon, C. (1999). Thought suppression and psychopathology. *Behaviour Research and Therapy, 37*, 1029–1054.

Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy, 19*, 6–19.

Salkovskis, P. M., Clark, D. M., Hackmann, A., Wells, A., & Gelder, M. G. (1999). An experimental investigation of the role of safety-seeking behaviours in the maintenance of panic disorder with agoraphobia. *Behaviour Research and Therapy, 37*, 559–574.

Sartory, G., Rachman, S., & Grey, S. J. (1982). Return of fear: The role of rehearsal. *Behavioural Research and Therapy, 20*, 123–134.

Wegner, D. M. (1989). *White bears and other unwanted thoughts.* New York: Viking.

Wells, A. (1990). Panic disorder in association with relaxation induced anxiety: An attentional training approach to treatment. *Behavior Therapy, 21*, 273–280.

Wells, A. (1995). Meta-cognition and worry: A cognitive model of generalized anxiety disorder. *Behavioural and Cognitive Psychotherapy, 23*, 301–320.

Wells, A. (1997). *Cognitive therapy of anxiety disorders.* Chichester, UK: Wiley.

Wells, A. (1999). A metacognitive model and therapy for generalized anxiety disorder. *Clinical Psychology and Psychotherapy, 6*, 86–95.

Wells, A. (2000). *Emotional disorders and metacognition: Innovative cognitive therapy.* Chichester, UK: Wiley.

Wells, A., & Carter, K. (1999). Preliminary tests of a cognitive model of generalized anxiety disorder. *Behaviour Research and Therapy, 37*, 585–594.

Wells, A., & Carter, K. (2001). Further tests of a cognitive model of generalized anxiety disorder: Metacognitions and worry in GAD, panic disorder, social phobia, depression, and non-patients. *Behavior Therapy, 32*, 85–102.

Wells, A., Clark, D. M., Salkovskis, P., Ludgate, J., Hackmann, A., & Gelder, M. (1995). Social phobia: The role of in-situation safety behaviours in maintaining anxiety and negative beliefs. *Behavior Therapy*, *26*, 153–161.

Wells, A., & Dattilio, F. (1992). Negative outcome in cognitive-behaviour therapy: A case study. *Behavioural and Cognitive Psychotherapy*, *20*, 291–294.

Wells, A., & Matthews, G. (1994). *Attention and emotion: A clinical perspective*. Hove, UK: Erlbaum.

Wells, A., & Matthews, G. (1996). Modelling cognition in emotional disorders: The S-REF model. *Behaviour Research and Therapy*, *34*, 881–888.

Wells, A., & Papageorgiou, C. (1995). Worry and the incubation of intrusive images following stress. *Behaviour Research and Therapy*, *33*, 579–583.

Wells, A., & Papageorgiou, C. (1998a). Relationships between worry, obsessive–compulsive symptoms and meta-cognitive beliefs. *Behaviour Research and Therapy*, *36*, 899–913.

Wells, A., & Papageorgiou, C. (1998b). Social phobia: Effects of external attention on anxiety, negative beliefs, and perspective taking. *Behavior Therapy*, *29*, 357–370.

Wells, A., & Papageorgiou, C. (2001). Brief cognitive therapy for social phobia: A case series. *Behaviour Research and Therapy*, *39*, 713–720.

Wells, A., & Sembi, S. (2001). *Metacognitive focused therapy for PTSD: Effectiveness of a new treatment approach*. Manuscript submitted for publication.

Guilford Publications
72 Spring Street
New York, NY 10012
212-431-9800
800-365-7006
www.guilford.com