

CHAPTER 1

The nature of obsessions

Obsessions are repetitive, unwanted thoughts, images, or impulses that a person finds unacceptable and/or repugnant. They are among the most distressing psychological problems and can be mentally exhausting. Struggling against obsessions is a lonely, private battle. The three main themes of obsessions are unacceptable aggressive, sexual, or blasphemous thoughts. The person is distressed by these unwanted, repugnant, and seemingly inexplicable impulses, images, or thoughts. Obsessions generally give rise to resistance, fighting off the thought, attempting to neutralize the effect of the thought, to cancel it, or to put matters right. They can also give rise to extensive avoidance behaviour. In recent years, the term 'obsessional' has been broadened, in some circumstances, to mean more than a classical obsession: it is applied to include all thoughts associated with compulsive behaviour. This manual deals with classical obsessions, the repugnant and unacceptable intrusive thoughts that conflict with the person's self-view and are resisted.

The term 'obsessions' is sometimes used to encompass recurrent, preoccupying thoughts. In the DSM system of classification, for example, 'obsessions' include recurrent, preoccupying thoughts about checking, washing, and similar compulsive behaviour, but these thoughts lack the repugnant, often violent, immoral, objectionable qualities of classical obsessions and seldom give rise to resistance. The objectionable, immoral intrusive thoughts, classical obsessions, invariably give rise to resistance. The broader use of the term emphasizes recurrence and preoccupation, but does not require the elements of repugnance and resistance.

Examples of classical obsessions include the following.

- 1 Aggressive (or harm) obsessions, such as thoughts of harming old people or children or relatives (I will push an elderly man under the oncoming train; I will stab my mother; I will throw rocks at children) or thoughts of harm coming to relatives/friends (my parents will be brutally assaulted by an intruder). Many of these harm obsessions involve violence.
- 2 Sexual obsessions include: fear of inappropriate acts or gestures (I will sexually molest a young child; I will expose myself in a public place), and repeated images of sex with inappropriate partners (I see myself having sex

with a religious figure; I experience sexual thoughts about my sister/brother, mother/father). Sexual obsessions are more common among men than women.

- 3 Blasphemous obsessions include: a fear of making sacrilegious gestures in a holy place (I will shout foul, obscene language in church), the pollution of prayers or other rituals by impure, disgusting thoughts (the intrusion of foul language during prayers).

Some obsessions combine elements of two or more of these three major themes: sex, aggression, blasphemy. One patient who was assailed by bizarre, repugnant, violent images and thoughts described it as living in a nightmare, 'only I am awake'.

People experiencing obsessions recognize that the thoughts are their own production, and find them to be ego-dystonic (contrary to their view of themselves). As a result of these features, combined with the objectionable quality of the content of the obsessions, the person generally resists the obsessions. The affected person tries to block the intrusive ideas, to oppose them, suppress them, debate them, or reject them altogether. The obsessions can produce feelings of shame, disgust, fear, self-doubt, and self-distrust. People tend to question their view of themselves and their morality, and may begin to feel that they are unsafe, evil, weird, or on the verge of going crazy. The thoughts are so shameful/embarrassing that people prefer to conceal them, and feel guilty for having such unacceptable and repugnant ideas.

The major misinterpretations can be summarized in this way: these horrible thoughts mean that I am bad, mad, or dangerous—or all three.

Most obsessions are kept secret—in one patient's words, 'It is my dirty little secret'. Another patient said, after successful treatment, that 'the number of my secrets was a measure of my illness'. Before entering therapy, they tend to believe that their obsessional experiences are unique to them, and this belief is protected by keeping the experiences secret. It follows that they feel they are freakish and/or weird. Given that most of the people who are seriously affected by obsessions have high moral and/or religious standards, these ideas are extremely objectionable and give rise to self-doubt, self-distrust, feelings of degradation, and anxiety about their true personality. They fear that the obsessional experiences indicate that they have lurking inside their seemingly virtuous personality, secret thoughts and ideas that are dangerous, wicked, disturbing, sinful, and unsafe (e.g. 'I must be a very bad person?'). Many patients are intensely fearful that one day they will lose control and carry out the repugnant actions. As will be described presently, it can be didactic to help the patient calculate the number of times that they have had the thoughts or

impulses (usually thousands and thousands of times) and the total absence of consequent actions. For example, a 30-year-old woman was deeply troubled by her recurrent thoughts of aggression towards others. Given that she had such thoughts every single day, repeatedly, over a period of 12 years, we concluded from our rough calculation that she had racked up a score of some 300 000 aggressive obsessional thoughts. On the other side of the balance, she could not recall carrying out a single aggressive action throughout the 12-year period of her struggle with obsessive compulsive disorder (OCD).

In some cases of OCD, people suffer from a feeling of mental pollution (Rachman 1994) in addition to their other concerns. This feeling of an internal, immoral dirtiness, can also enter into classical obsessions. People who are assailed by repugnant and distressing thoughts or images of bizarre/unacceptable sexual acts can feel polluted, as can people who are besieged by vile and blasphemous thoughts. Feelings of mental/moral pollution give rise to excessive cleaning and purification, but the cleaning rarely achieves peace.

The three forms of obsessions—thoughts, images, impulses—have many features in common (intrusiveness, unacceptability, and so on), but differences between them can be of therapeutic significance. In factor analytical studies, distress and uncontrollability emerged as the main factors of all obsessions (Rachman and Hodgson 1980). On a number of measures, however, obsessional impulses were rated as the most unpleasant of the three. They were reported to be more intense, more distressing, more tormenting, and more difficult to deal with than the images or thoughts. Clinically, they more often lead to avoidance behaviour; for example, patients who experience obsessional impulses to harm children tend to avoid public play areas, schools, and so on. Obsessional images tend to be of shorter duration and are more easily dismissed or broken by distraction. Obsessional thoughts are the most common form, and sometimes dwell on past events, such as guilty ruminations about past actions or failures to act.

It appears that anxiety does most to promote frequent intrusions, and dysphoria does most to prolong the intrusions. To a surprising extent, obsessions are triggered by external precipitants, a finding that is taken into account by incorporating exposure exercises in treatment programmes. As the connection between external cues and 'internal intrusive cognitions' is not always obvious, the value of exposure exercises tends to be overlooked. It is probable that repeated exercises reduce the patient's anxiety and lead to important cognitive changes, such as, 'I did not attack any children, I am not a dangerous person.'

Given the role of anxiety and dysphoria in provoking and maintaining obsessional intrusions, some benefits can be achieved by dealing with the aversive effects by indirect means, that is, by treating the dysphoria/anxiety.

Table 1.1 Forms of obsessions

	Thoughts	Images	Impulses
Intrusive	Yes	Yes	Yes
Unwanted	Yes	Yes	Yes
Repugnant	Yes	Yes	Yes
Objectionable	Yes	Yes	Yes
Resisted	Yes	Yes	Yes
Pictures in the mind	No	Yes	No
Frightening	Yes	Yes	Extremely
Fear of loss of control	Yes	Yes	Intense
Avoidance	Yes	Yes	Intense
Immorality	Yes	Intense	Yes
Neutralizing attempts	Yes	Intense	Yes
Agitation	Yes	Yes	Intense
Frustration	Extreme	Extreme	Yes
Duration	Often prolonged	Fleeting	Can be brief

Examples:

Images of incestuous acts, images of blinding a child.

Thoughts of serious harm coming to parents, blasphemous thoughts about the Virgin Mary.

Impulses to push an elderly person in the path of an oncoming train, impulses to expose oneself in public, impulses to sexually molest a young child.

The person's ability to dismiss their obsessions is related to the intensity and the distressing power of the intrusions, and the distress produced by the obsessions is influenced by the person's affective state. It follows that success in improving the patient's affective state should reduce the distress caused by the obsessions and, hence, make it easier to dismiss them. The value of the indirect tactics of reducing dysphoria/anxiety, by psychological or pharmacological means, is understandable, and they are compatible with the direct tactics that form the substance of the manual.

Avoidance behaviour

Even though obsessions are essentially cognitive, the behavioural component can be very important and should not be neglected. People who are tormented by obsessional impulses to make violent attacks take great care to avoid sharp instruments, weapons, potential victims, and so on. Those who have obsessional

thoughts of deliberately causing a motor vehicle accident, avoid driving. As in other forms of cognitive behaviour therapy, the patient is encouraged to reduce the maladaptive avoidance behaviour. If the patient experiences excessive anxiety, relaxation exercises may facilitate the early exposure exercises and can also be used during the exposure session, as needed. Whenever appropriate, the therapist begins by providing therapeutic modelling sessions. These sessions help to reduce the patient's fear and avoidance, and also serve to restore the person's belief in his/her dependability. They have to regain the belief in themselves as safe people. Numerous obsessions are provoked by external cues, such as sharp objects, and they can provide the material for successful exposure exercises, as in straightforward behaviour therapy. Patients who experience obsessional impulses of violence tend to avoid horror movies, sharp knives, and kitchens—because they have learnt that these stimuli can trigger their obsessional impulses. Patients experiencing objectionable sexual images avoid explicitly sexual movies, magazines, and pictures, for fear of triggering their obsessions. An unfortunate consequence of avoidance is that the person reduces the chances of gaining disconfirming evidence; the maladaptive cognitions are preserved.

During the assessment phase it is important to collect information about avoidance behaviour and, whenever possible, conduct a set of behavioural avoidance tests.

Responsibility for thoughts

Some people with OCD hold extreme beliefs about beliefs; for example, they may believe that they should be able fully to control their thoughts. In particular, they feel that they must control their objectionable, supposedly important, and revealing thoughts.

Patients are surprised and often relieved to learn that all people experience intrusive thoughts, many of them unwanted thoughts. They are relieved of some guilt and also are relieved to learn that their intrusive experiences are not a sign of mental illness; they learn that their experiences and thoughts need not be concealed or feared. The intrusive, unwanted thoughts do not lead to disaster. They are a psychological phenomenon in their own right, are commonly experienced, and not a way-station to losing control or to insanity.

Affected people tend to attach undue significance to their intrusive thoughts, and this over-interpretation can become entangled with their exaggerated sense of responsibility (Rachman 1997c; Salkovskis 1985, 1999; Purdon 1999). For example, 'My immoral sexual thoughts reveal something important

and unflattering about the kind of person that I really am', and this can be entangled with 'I am morally responsible for these objectionable thoughts'. It can even extend to the psychological fusion of the thought and action (see below). People who regard their homosexual thoughts as unacceptable, sometimes reason in this way: 'My intrusive thoughts about homosexuality are unacceptable and indicate that I am fundamentally homosexual in preference'. A comparable chain of reasoning can occur with blasphemous thoughts. People feel that the mere experience of having a blasphemous thought is equivalent to committing an act of blasphemy, and consequently they are sinfully responsible.

The majority of people dismiss or ignore their unwanted intrusive thoughts and regard them as dross. However, once a person attaches important meaning to these unwanted thoughts, they tend to become distressing and adhesive. The full causes of the process by which obsessions acquire extraordinary significance for a person are not always evident. The inclination to over-interpret the significance of our intrusive thoughts is perhaps promoted by direct instruction, moral or religious. Strict moral education may also promote elevated levels of personal responsibility. The tendency to over-interpret can also arise from direct experiences or as a result of self-instruction.

Elevated responsibility leads to attempts to protect other people. Obsessions involving harm lead to attempts to prevent other people from the harm signalled by the obsession. This can be attempted by carrying out a neutralizing action or by forming a neutralizing thought or counter-image or counter-thought.

Hostility

During the course of treatment it is not uncommon to observe signs of hostility, particularly among patients who are disturbed by their recurrent thoughts/impulses to harm other people. The patients are troubled and distressed by the frequency and nastiness of these aggressive thoughts, as they almost invariably have high standards of personal conduct. They try to be considerate and go to lengths to avoid upsetting others, let alone causing them serious harm. As one patient put it, 'I seem to be a confusion of Mother Theresa and a serial killer'.

Numbers of clinicians are of the opinion, possibly correct, that obsessional patients have difficulty in expressing their anger. The notion that the patients' expressions of great concern for others, and their excessively kind and considerate actions, are over-compensations, reaction formations, to their unacceptable feelings of anger has its origin in psychoanalytic thinking. The

difficulties in conducting adequate research in psychoanalysis led to the neglect of the idea, but within the past few years conventional, psychometric, research has produced some evidence of elevated hostility/anger among patients with anxiety disorders. For example, Dadds *et al.* (1993), found that intropunitive hostility was a feature of these disorders. Comparable findings were reported by Rocca *et al.* (1998): their 30 patients with OCD reported the highest scores on hostility but discordantly low scores on the expression of anger. Similarly, we found that among 160 non-clinical students, hostility was the best predictor of high scores on an OCD scale (S. Rachman 1999, unpublished). However, the high scorers on the OCD scale had low to average scores on the expression of anger. The results are consistent with the possibility that patients with harm obsessions do have elevated feelings of hostility but suppress their expression. The connection between hostility and harm obsessions was clearly evident in a patient receiving cognitive behaviour therapy. He made gratifyingly satisfactory progress in reinterpreting his intrusive thoughts and their frequency declined; however, when he had upsetting encounters or conversations with people whom he felt were critical of him, the frequency of the harm obsessions spiked up briefly. Harm obsessions can also be provoked by exposure to aggressive movies or other material, in keeping with the important research reported by Horowitz (1975). In a number of experiments he demonstrated that the frequency and aversiveness of intrusive thoughts is increased by exposure to stressful material.

In many instances their hostility is understandably reactive to ill-treatment by family, friends, and so on, but when the ensuing feelings of hostility come into conflict with the value they attach to considerate and kind behaviour, they try to suppress the expression of their anger. The recurrent intrusive and angry thoughts are unacceptable and are therefore resisted, but without success. One aspect of this difficulty may arise from an exaggerated sense of responsibility, and the tendency therefore to assign the blame internally rather than externally. On those occasions when they do assign blame elsewhere, their anger is in no doubt. Following this analysis through, the clinical dictum that obsessional patients sometimes make progress when they learn to express anger, can be interpreted as a redirection of their excessive responsibility and of their excessively internal attributions.

If responsibility for an anticipated or actual misfortune is redirected away from oneself toward another person or agency, anger may follow. Therapists should be prepared for patients to experience some anger in place of their pervasive guilt, if and when a re-attribution of responsibility occurs. In these instances, the therapist should help to explain the nature and cause of the new anger and assist the patient to acquire a balanced view of the allocation of

responsibility, and also of behaviour that is appropriate and effective when feelings of anger arise.

Thought–action fusion

Thought–action fusion (TAF) is a phenomenon in which people tend to regard their thoughts as being psychologically equivalent to the corresponding action, and/or to believe that their thoughts of possible misfortunes actually increase the likelihood that the misfortune will occur. It is almost as wicked to think of pushing an elderly man on to a railway track as it would be to actually push him. Additionally, the thought of pushing an elderly man on to a railway track is believed to actually increase the risk to that person. The unwanted intrusive image of having sex with a religious figure is an immoral equivalent of carrying out the act itself. Two forms of TAF have been identified: perceived probability TAF, in which the intrusive thought increases the probability of the unacceptable event occurring; and moral TAF, in which the thought is shameful and morally equivalent to the event (see Rachman and Shafran 1998). Probability TAF feeds into fears of losing control, and moral TAF is strongly associated with feelings of guilt and responsibility.

A cognitive theory of obsession

This treatment is based on the cognitive theory that obsessions are caused by catastrophic misinterpretations of the significance of one's unwanted intrusive thoughts, images, impulses (Rachman 1997c, 1998). By deduction: (a) the obsessions will persist for as long as the misinterpretations continue; and (b) the obsessions will diminish or disappear as a function of the weakening/elimination of the misinterpretations.

The unacknowledged assumption that obsessions are categorically separable, that obsessions are pathological and qualitatively different from other intrusive thoughts, was a barrier to progress. The obstacle was removed by conceptualizing obsessions as unwanted and unacceptable intrusive thoughts, and by the demonstration that such obsessional experiences are nigh universal (Rachman 1971, 1976a; Rachman and de Silva 1978; Salkovskis and Harrison 1984). An essentially cognitive disorder, such as obsession, requires an essentially cognitive explanation.

The behavioural approach focused on disorders of (observable) behaviour and was therefore equipped to tackle compulsive repetitive behaviour such as compulsive cleaning and checking. It was unable to tackle the unobservable

and inaccessible obsessions—hence the routine exclusion of patients with ‘pure obsessions’ from behavioural research and treatment trials.

A cognitive understanding of obsession

This theory is an explicit attempt to expand Clark’s (1986) theory of panic to obsessions, and draws heavily from Salkovskis’s profoundly important (1985) cognitive analysis of OCD (see also de Silva 1994; Freeston *et al.* 1996; Salkovskis and Kirk 1997). The theory is constructed on the work of Clark and Salkovskis.

The core statement regarding misinterpretations of one’s intrusive thoughts is deliberately succinct and simple. The theory and deductions are testable, encompass a range of observations and findings, draw strength from experimental and clinical research on panic, and, if confirmed, will justify the practical implementation of focused therapy for obsessions. The starting point for the theory is the premise that unwanted, intrusive thoughts are the raw material of obsessions, and the finding that these thoughts are almost universally experienced.

Obsessions are defined as ‘intrusive, repetitive thoughts, images or impulses that are unacceptable and/or unwanted and give rise to subjective resistance . . . the necessary and sufficient conditions . . . are intrusiveness, internal attribution, unwantedness and difficulty of control’ (Rachman and Hodgson 1980, p. 251). Obsessional intrusive thoughts are similar in some ways to the unwanted intrusive thoughts (images or impulses) that nearly everyone experiences, but there are also some differences: they are more intense, longer lasting, more insistent, more distressing, and more adhesive than the common variety of intrusive thoughts (Rachman and de Silva 1978). However, the form and content of abnormal and normal intrusive thoughts are similar. The characteristics of compulsions, morbid preoccupations, contamination fears, and related, but different, OCD phenomena, are described in Rachman and Hodgson (1980). The present theory is a theory of obsessions. Compulsions are repetitive, intense, stereotypic actions, such as cleaning or checking, that the person carries out in order to remove a perceived threat (e.g. of being contaminated) or to prevent a future threat (e.g. of causing a fire). The affected person feels compelled to carry out the actions, but can prolong, extend, curtail, or delay the actions.

What causes the transition from a normal intrusive thought into an abnormal obsession? Given the nature and distinguishing characteristics of the abnormal intrusive thoughts, plus Salkovskis’s (1985) astute and critical emphasis on the meaning of the thought for the person, it is plausible that a

catastrophic misinterpretation of the significance of the thought produces the very qualities that are distinctive of the abnormal obsessions. The misinterpretation of the intrusive thoughts as being very important, personally significant, revealing, and threatening or even catastrophic, has the effect of transforming a commonplace nuisance into a torment. The catastrophic misinterpretations often give rise to additional fears of the possible consequences of the obsessions: 'Will it lead me to attack someone?', 'Will the obsessions drive me insane?', and so on.

These are some case examples of catastrophic misinterpretations of obsessions. A 25-year-old computer analyst had recurrent thoughts and images of harming the very young children of a close friend, and interpreted this to mean that he is potential murderer, and a fundamentally evil and worthless human being. A second patient, devoutly religious, had recurrent and violent obscene images about the church and Mary, especially in church or when she tried to pray. She interpreted them to mean that she was a vicious, lying hypocrite, and that her religious beliefs and feelings were a sham. An affectionate and attentive grandmother had recurrent images of throwing her beloved grandson over the balcony and the resultant distress brought her close to suicide; she interpreted the images to mean that she was a dangerous and uncontrollable psychopath, and a person incapable of love or concern for other people. After a successful course of cognitive behaviour therapy (CBT) the obsessions were wiped out and she was able to resume a normal life, fully enjoying her grandchild.

Several arguments and lines of evidence can be assembled in support of the theory (see Rachman 1997c, 1998). They are based on the following findings: cognitions can cause anxiety, anxiety provoking interpretations of cognitions can lead to obsessions, and particular cognitive biases are associated with vulnerability to obsessions.

Cognitions can cause anxiety

First, the important functional connection between cognitions and anxiety has been demonstrated in research and treatment studies of the cognitive theory of panic (see: Clark 1986, 1988, 1996, 1997; Ehlers 1993; McNally 1994). People with panic disorder are more likely to make catastrophic misinterpretations of bodily sensations than are other people. The theory of obsession assumes that there is an essential similarity between obsession and panic. Both theories attribute the disorder to catastrophic misinterpretations of thoughts/sensations, and share many features. However, panic is episodic and obsession tends towards constancy. The intrusive thoughts that provide the raw material for obsession tend towards a daily constancy, and patients

complain that the nasty thoughts are always present, even when they are merely lurking 'at the back of my mind'. There is a sense that they are always hovering.

Catastrophic interpretations lead to obsession

Secondly, patients afflicted by recurrent obsessions commonly attach exaggerated significance to these thoughts and regard them as horrific, repugnant, threatening, dangerous, or all of these (e.g. see Freeston *et al.* 1993). Various patients have described their obsessional thoughts, impulses, or images as: immoral, sinful, disgusting, revealing, dangerous, threatening, alarming, predictive, insane, bewildering, and criminal. At a higher level, they interpreted these thoughts, impulses, or images as revealing important but usually hidden elements in their character, such as: these obsessions mean that deep down I am an evil person; I am dangerous; I am unreliable; I may become totally uncontrollable (see especially Purdon and Clark 1994); I am weird; I am going insane (and will lose control?); I am a sinful person; I am fundamentally immoral. Some of the elaborations of the interpretations lead them to fear specific consequences, such as: one day I will lose control (and perhaps act upon my violent, aggressive, immoral impulses?); one day I will break down and cause serious physical harm to others; if other people knew about my obsessions and/or their content, they would completely reject me; one day I will be locked up; I will be sent to hell; I am being (will be, deserve to be) punished.

The main themes of obsessions—aggression, sex, and blasphemy—are important themes of all moral systems, and hence open to an inflation of personal significance. (Incidentally, it is interesting that people rarely have obsessions about strong people who are well capable of defending themselves; it is usually children, disabled, or elderly people who feature because unwanted thoughts about harming helpless people are interpreted as being particularly shocking and reprehensible.)

It is evident from this analysis that in the cognitive theory of obsession, the *content* of the obsessions is of critical concern. Elsewhere it has been observed that cognitive theory, in general, is providing content to the behavioural theories (Rachman 1997a).

Given these descriptions, interpretations, and anticipated consequences, it is no surprise that the obsessions are so repugnant and frightening to the affected person, and their intense even frantic attempts to resist or remove the obsessions are perfectly understandable. So too is the avoidance behaviour that is generated by the obsessions. For example, a recurrent image of stabbing her children led a patient vigorously to avoid any contact with sharp objects

and she had strong locks installed on the kitchen doors. She was unable to enter or remain in her kitchen unless accompanied by a trusted adult.

Attempts to neutralize are attempts to prevent or mitigate the anticipated effects of the obsession. The person has a strong urge to cancel, correct, counteract, or atone for the obsession—in the familiar phrase, to ‘put matters right’. Attempts at neutralization can be frustrating and exhausting. Patients describe this sense of exhaustion even after spending a seemingly quiet and inactive day at home. Relatives are often puzzled and even irritated by these complaints, ‘But you have done nothing all day!’. As with compulsions, to which acts of neutralization bear a strong resemblance, the urge to act is strengthened by the fact that compulsions and neutralizations are partly successful; they relieve some part of the discomfort the person experiences from the obsessions (Rachman and Hodgson 1980; Rachman *et al.* 1996). However, it now appears possible that the relief accomplished by neutralization would have occurred spontaneously (Rachman *et al.* 1996). After an inactive delay period, the discomfort declines as it does after neutralization; the urge to neutralize also declines spontaneously, but more slowly (see Chapter 2). Presumably neutralization persists because it succeeds, but as with compulsions, this temporary relief comes at a price. Indirectly the neutralization helps to preserve the causal misinterpretations and their anticipated consequences.

Cognitive biases in obsessions

There is ample evidence of the operation of cognitive biases in our thinking (Tversky and Kahneman 1974; Nisbett and Ross 1980), and more recently in the operation of cognitive biases in OCD. For example, Lopatka and Rachman (1995) found that people with obsessional problems tend to think that the probability of a disaster or unpleasant event is increased when they are responsible. They are also inclined to think that they, but not other people, can be held responsible for misfortunes over which they have no control whatsoever. Additionally, there is a relationship between OCD and a cognitive bias of TAF (Rachman 1993; Shafran *et al.* 1996; see Chapter 2).

Insofar as a person uses (or is subject to?) cognitive biases, the vulnerability to abnormal obsessions is increased. Ultimately, we will need to explain, in addition, the origin and persistence of these biases, but that is a difficult task because the origin of even the common biases, such as the representativeness bias, remains to be fully explained. There appears to be a connection between an inflated sense of responsibility, as described by Salkovskis (1985), and the operation of specific OCD biases such as TAF (Rachman 1993). We have experimental evidence that an increased sense of responsibility for an unwanted event can lead to an increased estimate of the probability that

the unwanted event will occur (Lopatka and Rachman 1995; Rachman 1997c). 'If I am responsible for ensuring the safety of the house, the probability of a fire occurring is significantly greater than it would be if you were responsible for its safety', or more broadly, 'When I am responsible, things are more likely to go wrong'. Given that the estimated probability of an aversive event and the estimated seriousness of the consequences are important contributors to anxiety (e.g. see Butler and Mathews 1987; van Oppen and Arntz 1994; Freeston *et al.* 1996; Rachman 1997b), this particular bias is a likely contributor to anxiety.

The related bias, a feeling of responsibility even in the absence of control can be illustrated by a patient who felt responsible for ensuring the day-to-day safety of his parents who lived in a town 200 miles away. He attempted to protect them (actually to reduce his distress) by repeated hand washing.

These biases have been demonstrated in patients (Lopatka and Rachman 1995) and in students (Shafran *et al.* 1996). In a group of 214 students, significant correlations were found between these two biases and scores on the Maudsley Obsessional Compulsive Inventory (Hodgson and Rachman 1977), and also between these biases and the TAF bias. Moreover, the 28 subjects with a high total bias score reported significantly more obsessions (and other OCD-type features) than did the 38 subjects with a low total bias score.

The lack of success of pre-cognitive theory and treatments for obsessions

Treatment techniques were deduced from the earlier, behavioural analysis of OCD, and the analysis was also used to accommodate *ad hoc* procedures, such as thought-stopping. With few exceptions these special procedures were unsuccessful.

The unsuccessful tactics were thought-stopping, a rubber band sting on the wrist, and habituation training (Stern *et al.* 1973; Parkinson and Rachman 1980; Likierman and Rachman 1982; Marks 1987). It now appears that these techniques were unsuccessful because they arose from, or were justified by, an unsatisfactory theory of obsession. Moreover, in the light of the cognitive theory of obsession, these failures can be post-dicted. The techniques were attempts to block or reduce the manifestations of the problem, but neglected the underlying problem, that is the catastrophic misinterpretations of the significance of the intrusive thoughts were left unchanged.

So, even if the tactic of thought-stopping is applied rigorously, which is difficult, the most that can be expected is a temporary abortion or suppression of the obsessions (incidentally, there is some, not wholly consistent, evidence

that active suppression can cause a temporary increase in the intrusive thoughts; Salkovskis 1996). For similar reasons, the administration of a sting by a rubber band strapped to the wrist, which is a form of thought-interruption, also has a limited, temporary effect, if any.

Habituation training (also called satiation) was deduced directly from a behavioural 'anatomy of obsessions' (Rachman 1978). It was argued that, just as habituation training is capable of reducing fears, for a period at least, construing the obsessions as fear/discomfort-producing events, the repeated evocation of the obsession should reduce the associated discomfort. The results of an experimental investigation of 12 patients showed that habituation training, and separately thought-stopping, produced small changes at best, and these soon faded (Likierman and Rachman 1982). It is probable that these attempts failed because they did nothing to change the distressing misinterpretations of the intrusive thoughts and merely damped down the effects of the misinterpretations. As the misinterpretations presumably persisted, the distressing obsessions soon reappeared.

Where do the obsessions come from?

A complete answer to this question must wait for the time, not imminent, when we have a better grasp on the very nature of human thinking. At this stage, however, two facts about the origins of obsessions are worth remarking. First, we know that exposure to stress increases the incidence of unwanted intrusive thoughts, which are, after all, the raw material for full obsessions. Secondly, a surprisingly large number of obsessional thoughts (and especially impulses) are triggered by external cues (Rachman and de Silva 1978). The belief that obsessions are essentially, exclusively, internally generated has not been confirmed.

Fuller accounts of these two observations are given in Rachman (1978), Rachman and de Silva (1978) and Rachman and Hodgson (1980) but the essence of each is as follows. Patients report that during stress, their obsessions increase in frequency. The experimental research of Horowitz (1975), in which patients (and non-patients) reported increases in intrusive thoughts when exposed to stressful material, such as films, is consistent with this. In a naturalistic study, Parkinson and Rachman (1980) found that the mothers of children awaiting surgery experienced steep increases in unwanted intrusive thoughts—and a rapid decline when the child was safely out of surgery. Obsessions also increase during periods of dysphoria (Rachman and de Silva 1978) and Ricciardi and McNally (1995) have neatly confirmed the long-standing belief in a close connection between depression and obsessions: in a case-series analysis of 150 patients, they found that 'mood disorders seem

selectively associated with a worsening of obsessions' (p. 249). It remains to be determined whether dysphoria provides fertile soil for the intrusive thoughts, or whether it also provokes them. Either way, the present theory needs to be developed to include this connection—perhaps in a state of dysphoria, the significance and/or feared consequences of the intrusive thoughts are given a nasty twist?

The second observation, of the surprisingly large impact of external cues, was originally encountered in a study of the similarities and differences between normal and abnormal obsessions, and, as mentioned above, external provocation (and hence, more intense avoidance perhaps?) was especially important in stirring obsessive impulses. The research by Horowitz (1975) provides broad confirmation of the provocation of intrusive thoughts by external stressors (see Rachman and Hodgson 1980 for a summary account).

As in panic, it is likely that unfortunate sufferers from obsessions get caught up in a vicious circle.

Why do they persist?

The obsessions persist for as long as the misinterpretations persist, and these in turn will continue unless and until new evidence and/or arguments overturn the misinterpretations.

Why are the obsessions so frequent? Probably because the person's catastrophic misinterpretations of the intrusive thoughts result in a conversion of neutral cues and contexts into dangerous cues and contexts (Rachman 1998).

The relationship between significant misinterpretations and the frequency of obsessions

It remains to be explained how a catastrophic misinterpretation of the significance of an intrusive, unwanted thought causes a paradoxical increase in the frequency of the obsession, and how it also contributes to the remarkable persistence of the obsession. What is the connection between the significance attached to the obsession, and its frequency and persistence?

To begin with, we know that the frequency of intrusive thoughts is increased when people are subjected to stressful material or experiences (Horowitz 1975; Rachman and Hodgson 1980). In brief, the more stressful the material, the greater the number of intrusive thoughts and the greater the distress that they evoke. We also know that an increase in the number of threatening stimuli is also followed by an increase in the number of intrusive thoughts (Horowitz 1975; Parkinson and Rachman 1980).

It is argued here that when a person makes a catastrophic misinterpretation of the significance of his unwanted intrusive thoughts, this will increase the range and seriousness of potentially threatening stimuli. A wide range of stimuli are converted from neutrality into threat. Previously indifferent stimuli become highly salient. So, for example, if a person catastrophically misinterprets his unwanted intrusive thoughts about harming other people as signifying that he is potentially dangerous, then a range of formerly neutral stimuli are turned into potential threats (e.g. sharp objects are transformed into potential weapons).

This conversion of neutral cues and situations into potentially threatening ones increases the range of threats and therefore increases the opportunities for the provocation of obsessions. To continue with the same example, if my catastrophic misinterpretation leads to the conversion of sharp objects from neutral to threatening, then the opportunities for provocation of the unwanted thoughts are greatly increased by the addition of this new and wide range of threats. 'I am dangerous, and hence sharp objects are now viewed as threatening and best avoided.'

The repeated avoidance of sharp objects, unattended children, etc., leaves the person's view of himself as dangerous, unchallenged and unchanged. This same sequence of events can occur with internal stimuli. For example, if the person interprets the intrusive thoughts as signifying that he is dangerous and may lose control and harm a child, it follows that sensations of discomfort/anxiety (e.g. trembling, sweating) in the presence of children are interpreted as impending signs of serious loss of control. There is also a risk here of what Arntz and colleagues (1995) have called *ex-consequencia* reasoning, in which the person deduces a threat from the fact of feeling anxious. 'If I am anxious, it must mean that there is danger present', and in the present argument, 'If I am anxious when near children, there is a danger present, and I am it!'. Another example is: 'If I am constantly thinking of harming helpless people, it must mean that I am bad and dangerous—I am a significant threat'. Also the anxiety means that I do not have control of my reactions, and therefore there is an increased likelihood that I will act on the unwanted impulse. Hence the catastrophic misinterpretation of one's anxiety can interact to increase the catastrophic misinterpretation of the intrusion.

Anxiety in the presence of children is sometimes misinterpreted by patients as a sign of sexual arousal. 'I feel tense and trembling when I am near this child and it means that I am responding sexually.' This interpretation of internal sensations or external cues as signs of potential threat often leads to avoidance. The person avoids sharp instruments, attending church, being alone with children and, as argued earlier (Rachman 1997c), the avoidance behaviour leaves the catastrophic misinterpretation unchallenged. The opportunities for elicitation of obsessions,

Table 1.2 Analysis of the connection between significance and frequency can be illustrated in a series of steps, with accompanying examples

Step	Significance and frequency of obsessions	Examples
1	Stress increases intrusive thoughts.	
2	Thoughts are given catastrophic significance (danger, loss of control, insanity, evil).	They are very important, and revealing about me. I am dangerous.
Mainly external cues		
3	Given that I am a dangerous person, many situations and cues become salient and are now turned into threats—the range widens.	I am dangerous/evil and may harm others; sharp objects become threat cues.
4	Hence, opportunities for provocation of obsessions increase.	The sight of sharp objects, or unattended children, now provokes obsessions.
5	Avoid threat cues and/or neutralize the thought.	Avoid places where children congregate, avoid knives.
6	The catastrophic significance remains unchanged (or is even confirmed) by the avoidance.	The fact that I cannot be left alone with children proves that I am evil/dangerous.
7	The fact that I am constantly having these thoughts means that there is a danger (why else am I having these thoughts?).	Repeatedly thinking of harming children means that I'm evil/dangerous.
8	Given my dangerousness/wickedness, the range of potentially dangerous cues increases.	It makes me so anxious that I will never agree to care for or ever be alone with an infant—any infant, anywhere, anytime.
9	The opportunities for provocation of obsessions are therefore increased.	Unplanned exposures to infants, sharp objects are not avoidable.
10	This leads to a high frequency of obsessions, particularly in response to the less avoidable, internal cues.	The sight of any infant makes me very anxious and this can provoke harm obsessions.
Mainly internal cues		
11	The increase in the range of threatening cues can take place solely or largely 'internally'—more and more internal cues turn threatening.	I am trembling and sweating in the presence of this infant; I am losing control.
12	The fact that I am anxious in these situations means that I am indeed dangerous (ex-consequentia reasoning).	The intense anxiety caused when I see knives proves that I am untrustworthy/dangerous.

by the widening range of internal sensations or internal stimuli, are increased, and hence, the frequency of the obsessions remains high.

In contrast, if the catastrophic misinterpretation is changed or reduced and replaced by a benign interpretation, the opportunities for the elicitation of the obsessions are reduced. The frequency of the obsessions will decline in large part because of the re-conversion of threat stimuli back to neutral stimuli: there are fewer opportunities for the elicitation of the obsessions.

Which neutral cues are converted into threat stimuli and why? This depends on the specific content of the intrusive thought and its meaning to the affected person. For a deeply religious person, intrusive blasphemous images or thoughts can be interpreted as catastrophic and will cause previously neutral religious cues to become threats (e.g. churches, prayers, religious practices, religious pictures, even religious words). For a person assailed by intrusive thoughts of aggression towards children, any congregation of children becomes a source of threat, being alone with a young child becomes a threat. For a person who begins to experience intrusive thoughts of violence, sharp objects are converted into items of threat. Contrariwise, for the person troubled by blasphemous thoughts, sharp objects remain neutral. Religious icons are, however, converted from neutral to threat. For the person troubled by aggressive thoughts towards children, churches and religious icons remain neutral (see also below in the discussion of obsessional content).

It is curious—but revealing—how frequently the potential ‘victims’ who feature in harm obsessions are helpless. Typically, the ‘victims’ are the elderly, the disabled, the very young. Probably this is so exactly because they are helpless; this makes the intrusive thought utterly immoral or repugnant, and hence, the affected person attaches even greater significance to these horrible obsessions. For example, ‘If I have such repulsive, utterly unjustifiable horrible thoughts, then I must be totally immoral and dangerous’. There can be no more repugnant idea than injuring people who are helpless. This analysis is illustrated in a series of steps with accompanying examples (see Table 1.2). It is also worth noticing that people rarely (ever?) have harm obsessions about strong people who are well capable of defending themselves—there are no Arnold Schwarzenegger obsessions.

The relationship between catastrophic misinterpretations and the persistence of obsessions

The catastrophic misinterpretation placed on an unwanted intrusive thought increases the opportunities for the elicitation of obsession and hence

the frequency of obsession increases. In a related manner, the catastrophic misinterpretation of the intrusive thought promotes persistence of the obsession. The particular obsession will persist for as long as the thoughts/images/impulses are interpreted as being of great personal significance. For example, if my obsessional images of violence are interpreted as meaning that I am a dangerously violent person, then this view of myself cannot be dismissed easily. The images are far too important and far too threatening to be ignored. One feels compelled to take action to reduce or to avoid the perceived danger, and these avoidance actions can be physical or mental. Actual avoidance or covert neutralization do provide temporary sanctuary or release. One moves to safer 'territory' or cancels the threat.

The significance of the obsession remains unaltered, however, and therefore the obsession will persist for as long as the person remains under threat (e.g. near children, in a kitchen containing sharp objects, etc.). Moving away from the threat, where and when this is possible, will temporarily interfere with the persistence of the obsession, only for it to return when the person is re-exposed to potentially threatening stimuli or internal sensations.

Again, by contrast, if the catastrophic misinterpretation is changed, reduced, or replaced, the internal and external cues are no longer interpreted as sources of threat. Now reduced to non-threatening cues, they can safely be dismissed or ignored. Unwanted intrusive thoughts that are regarded as insignificant will not persist.

Internal and external provocations of obsessions

Just as panic can be provoked when the person catastrophically misinterprets certain bodily sensations (Clark 1986), bodily sensations that occur in association with unwanted intrusive thoughts can also be catastrophically misinterpreted—say as confirmatory signs of an imminent loss of control, danger, and so forth. As mentioned earlier, if a person who suffers from unwanted intrusive thoughts of harming young children perceives himself to be trembling and sweating when in the presence of a child, he is likely to interpret the bodily signs as indicators of an impending loss of control and/or as signs of imminent aggression. With either interpretation, the occurrence of the bodily sensations in association with the obsession confirms the great importance of the unwanted intrusive thoughts: 'The fact that I am so upset here means that the thoughts must be important—why else would I tremble and sweat in the presence of unprotected children?'. The personal reactions appear to be inappropriate, perhaps dangerously inappropriate. The reactions are also out of context—perhaps what some patients mean when they reportedly complain

that 'it doesn't feel right'. Another worry is that one's inability to control the unwanted thoughts can be taken as a sign that one cannot dependably control one's impulses to act, to harm others, say.

At this stage the person is faced with a choice. In trying to make sense of the fact that he repeatedly feels tense and trembling in the presence of young children, he can interpret this as meaningless nonsense or can interpret the feelings as signifying that he is a freak and unreliable in the presence of children.

More broadly, the very occurrence of the repugnant, unwanted, intrusive thoughts can be catastrophically misinterpreted as evidence of their significance (Salkovskis and Kirk 1997; Shafran 1997): 'The fact that I am repeatedly having these horrifying thoughts/images/impulses must mean that they are of special significance'. Very likely they are also interpreted to mean that the affected person is indeed different, perhaps a freak, evil, potentially dangerous, insane: 'Who else but a freak, psychopath, or insane person would keep having such unnatural and horrific impulses and thoughts?'. Incidentally, the significant misinterpretation of the very frequency of the intrusive unwanted thoughts (i.e. they must be important because I am having them so often), may help to explain the puzzle of those rare but baffling nonsensical obsessions that persist over long periods of time. It is possible, indeed, that they persist because the person interprets the intrusiveness of the nonsensical ideas, musical phrases, etc., as evidence of a hopeless irrationality that is of considerable significance, perhaps as the sign of impending mental illness, for example.

Of course it is essential for the affected person to conceal the fact of violent, obscene, unwanted intrusive thoughts from other people because 'they would draw the same conclusions about me as I have already done for myself' (e.g. 'If people discover that I am repeatedly having unnatural, dangerous and obscene impulses, they too will conclude that I am a freak or mentally ill or a psychopath').

For these reasons, the early and educational component of CBT (see below) can provide considerable relief for sufferers and prepare the ground for less catastrophic interpretations of their intrusive thoughts. Many patients obtain some useful and rapid relief on being informed (correctly) that virtually all people experience unwanted intrusive thoughts, and that the content of these high-universal unwanted intrusive thoughts is not too different from the content of clinical obsessions. Reading printed lists of the 'normal' obsessions can be a first step towards deflating the erroneously unique significance that the person attaches to his own intrusive thoughts—the experience of obsessions is not rare, nor is it a sign of freakishness or mental illness (see Toolkit). The difference between abnormal obsession and normal obsession lies not in the

content as such (de Silva and Rachman 1997; Rachman and de Silva 1978) but in the significance that is attached to the experience, and in the distress and disablement that is consequent on this interpretation.

The content of obsessions

The particular content of obsessions can be deduced from the core of the present theory: that obsessions arise from the catastrophic misinterpretation of unwanted intrusive thoughts. We all experience unwanted intrusive thoughts but it is only a small minority of people who develop clinically significant obsessions. It is argued that this small group is vulnerable because of their pre-existing beliefs and cognitive biases. Moreover, the particular content of their obsessions will be determined by these very beliefs and biases. The unwanted intrusive thoughts that are subject to conversion into obsessions are those that have a particular significance for the affected person. The content of a person's obsessions, whether aggressive or sexual or blasphemous or a combination of these, will be determined not only by the general significance that they attach to intrusive thoughts, but also by the themes that are most important in the patient's system of values. If the person has very strong views about the need to behave compassionately, courteously, and gently, and rejects all violence ('I haven't an aggressive bone in my body'), the unwanted emergence of intrusive aggressive impulses is acutely unwelcome and distressing.

If one believes that it is essential to be consistently kind and helpful, the arrival of aggressive or violent impulses towards other people (especially if they are helpless) is particularly repugnant. This is a first step on the way to the emergence of an obsession, but it is not likely to proceed to the second and final stage unless the person makes a catastrophic misinterpretation of the meaning of the intrusive thought. It is perfectly possible for someone to be upset by an unwanted violent thought but to regard it as carrying little significance. In these instances, no obsession will be generated. In contrast, if the unwanted violent thoughts are interpreted as signifying that the person is potentially dangerous or evil, then the stage is set for the emergence of persisting obsessions.

A person of very high religious standards, particularly one who believes strongly that one should be as pure in thought as in deed, will be particularly upset by the unwanted intrusion of irreligious or sinful thoughts. A person who attaches especially strong value to conventionally acceptable sexual ideas and behaviour will be particularly upset by the unwanted appearance of obscene impulses, images, or thoughts. In general, it has been observed that the people who are prone to obsessional experiences are those who are of 'tender conscience' and those who are 'religiously quickened' (Rachman and

Table 1.3 The relationships between content, feelings, and behaviour

	Thought content	Interpretation	Typical feelings	Typical behaviour
1	Unacceptable, sexual, mean, blasphemy	Immoral	Guilt, rejection, fear of discovery	Conceal, put right, compensate, neutralize
2	Harmful, aggressive impulses/images re: elderly, disabled, young, injure, attack, cause accident.	Dangerous	Guilt, fear, inflated responsibility	Avoid, isolate, restrain, neutralize, check
3	Bizarre, out of context, puzzling	Going insane	Fear	Resist, conceal, seek help, medicate
4	Unacceptable, angry, extremist, shocking	Anti-social	Anxiety, anger	Conceal, resist, avoid

Hodgson 1980); and there are some notable historical examples of religious leaders who were tormented by blasphemous/obscene thoughts (e.g. John Bunyan, Martin Luther).

It is an unexplained oddity that there are three main themes of obsessions (harm, unacceptable sexual ideas, blasphemy), but some other unacceptable/immoral themes, such as avarice, rarely feature in obsessions.

The well-recognized connection between depression and obsessions (see Rachman 1997c) can be newly interpreted within the cognitive theory. Given the self-deprecatory ideas that form part of depression, people are especially vulnerable to attaching catastrophic personal significance to their intrusive thoughts when depressed. They already believe that they are immoral, useless, disturbed, guilty, and are therefore easy prey. It is a short and easy step to incorporate one's unwanted intrusive thoughts into this pre-existing negative self-view. The nasty thoughts do not intrude into neutral territory but, rather, are incorporated into a well-prepared personal vulnerability.

Given the person's vulnerability to attaching excessive importance to intrusions of particular content, it is possible to set up a rudimentary classification of the main types of thoughts involved: immoral, dangerous, anti-social, insane. It is postulated that the most common personal interpretations of such thoughts are: I am bad/dangerous; I will lose control and carry out the act; these irrational thoughts mean that I'm going crazy. A conceptual classification of these four main types with their associated behaviour, feelings and content, is set out in Table 1.3. Ultimately of course, this and similar classifications will need to be subjected to formal psychometric investigation and analysis.

Neutralization

People who experience obsessions frequently are inclined to take steps to 'put matters right', that is to neutralize the anticipated negative effects of the obsession or to neutralize the uncomfortable/guilty feelings engendered by the obsession (Salkovskis 1985). These attempts to undo or put right the obsession and its potential effects can be successful in the short run. There is clinical and experimental evidence showing that acts of neutralization are followed by significant reductions in anxiety/discomfort (Rachman *et al.* 1996). Most attempts at neutralization are not directly observable, and it is this very inaccessibility that has made them a difficult target in therapy. The overt forms of neutralization are more accessible and hence more tractable. However, we now have methods for converting the covert neutralizing activities into overt ones (Rachman *et al.* 1996).

Neutralization resembles compulsive behaviour but is not identical with it. Both neutralization and compulsion are commonly anxiety-reducing and it is believed that both of these activities are re-inforced and strengthened because they are successful in the short run (see Mowrer's two-factor theory: Mowrer 1939, 1960; Rachman and Hodgson 1980). However, not all acts of neutralization have compulsive qualities. Many acts of neutralization have the stereotypic and driven properties of the more common forms of compulsion, but other instances of neutralization are neither stereotypic nor driven by a compulsive urge to execute the neutralizing action, or even to do it repeatedly. Rather, many acts of neutralization are deliberately chosen tactics that are used selectively to deal with particular obsessions in certain circumstances (Rachman and de Silva 1978; Freeston and Ladouceur 1997). Unlike compulsions, these types of neutralizing act seldom give rise to resistance. On the contrary, the person intentionally adopts and uses them. They are tactics rather than compulsions.

In the long run, the use of neutralization is maladaptive because it helps to maintain the patient's belief that the act of neutralization was responsible for preventing the feared event from occurring and/or that without the neutralization the discomfort caused by the obsessions would have persisted. In these ways, neutralization shields the beliefs from disconfirmatory evidence.

If the feared event, say an obsessional impulse to harm an infant, is repeatedly anticipated but fails to occur, then the belief that one might carry out this type of aggressive act would, with frequent repetition, be weakened and finally disconfirmed. The sequence can be illustrated in these steps:

- 1 I have an intrusive unwanted impulse to harm an infant;
- 2 I believe that I may lose control and cause harm to infants;

- 3 but for therapeutic or spontaneous reasons I place myself in contact with infants;
- 4 however, I do not act on the impulse, I do not harm the infant;
- 5 after many repetitions of such exposures, my belief that I may act harmfully is disconfirmed;
- 6 the steady accumulation of this disconfirmatory evidence gradually weakens my belief that I may lose control and harm infants.

However, if instead of these planned exposures, I neutralize the unwanted impulse (and recall that neutralization is temporarily effective), then I am likely to believe that the act of neutralization helped to prevent the feared event: 'If I had not taken the precaution of neutralizing, then the feared event might have occurred'; 'If I hadn't left in time I might have molested that child'. The belief that I might carry out the obsessional impulse is shielded from disconfirmation. If anything, the repeated and temporarily effective use of neutralization will help to confirm the (competing) beliefs: 'I am so uncontrolled/dangerous that I must take steps to prevent myself from acting in a harmful manner', and/or also, 'If I had not neutralized the obsessional impulse, the feared event may well have occurred'.

It is assumed here that this cycle of:

obsession → neutralization → relief → confirmation of belief

is strengthened by repetition. It is further assumed that the cycle can be broken by repeatedly blocking the urge to neutralize.

If blocking is instituted, the affected person acquires two important pieces of information. First, he/she learns that the feared event does not occur, even if no neutralization precautions are taken. Secondly, he/she learns that the anxiety aroused by the obsession diminishes spontaneously—it declines, even in the absence of attempts at neutralization.

This new information can help to modify the inflated significance attached to the obsession. The obsession need no longer be interpreted as a premonitory sign of loss of control, or of danger. New information can also undermine the idea that the obsessions are of significance in revealing that the affected person is dangerous, insane, on the verge of losing control. Furthermore, learning that the anxiety dissipates spontaneously can help to weaken the inflated significance that is given to the obsession. The thoughts, impulses, or images are not so important that they must be corrected, put right, or neutralized; obsessions and their associated anxiety/discomfort fade away naturally, spontaneously. They are not so important that they must be dealt with, immediately and fully. They can safely be ignored or dismissed. They are 'noise' rather than meaningful signals.

Of course, neutralization is only one of several possible reactions to the experience of an obsession. The same reasoning, including the hypotheses and predictions, can be applied with minor modifications to other reactions, such as repeated avoidance behaviour. For example, 'I have harmful obsessions regarding children, and must therefore take care to avoid being alone with them'. The fact that no harmful acts actually occur is then ascribed to the precautionary avoidance behaviour, and the catastrophic misinterpretation of the obsession is left unchallenged and unchanged.

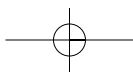
Catastrophic misinterpretations of obsessions can also trigger a sequence of self-sustaining stress in which a particular reaction to the obsession causes a paradoxical increase in the very obsession itself. Although the parameters of the phenomenon are still unclear, there is evidence that deliberate attempts to suppress particular unwanted thoughts can lead to a paradoxical increase in their frequency—the so-called 'white bear' effect (Wegner and Pennebaker 1993). For example, if people are instructed not to think about white bears, in many circumstances they will then experience a paradoxical increase in the number of such thoughts (e.g. Clark and Ball 1991; Salkovskis and Campbell 1994; Gold and Wegner 1995). From the present point of view, an inflated increase in the significance attached to an unwanted intrusive thought, such as an obsession, will lead to more vigorous and intense attempts to suppress such thoughts: 'They are so horrible and repugnant and dangerous that I must fight them off'. These attempts can produce an increase in the frequency of the obsession.

In contrast, it is predicted that a reduction in the catastrophic interpretation placed on the obsession will lead to fewer and less intense attempts to fight against the obsession. This in turn will be followed by a reduction in the frequency of the obsession. This specific prediction consists of three stages:

- 1 the catastrophic interpretation of the obsession is reduced;
- 2 there is an ensuing reduction in attempts to suppress the obsession;
- 3 there is a reduction in the frequency of the obsession.

Given that patients can misinterpret the frequency with which they experience the obsession as evidence of the importance of the obsession (Salkovskis 1985; Salkovskis and Kirk 1997; Shafran 1997, and see the case excerpt on p. 80), paradoxical increases in frequency that arise from attempts at suppression may actually strengthen the catastrophic misinterpretation themselves. A vicious circle is established:

- 1 These repugnant thoughts are highly significant for me.
- 2 I must suppress them.
- 3 They paradoxically increase in frequency.



- 4 The fact that I keep getting these repugnant thoughts means that they are indeed highly significant for me.
- 5 I must suppress them.

Responsibility

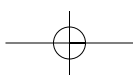
The concept of inflated responsibility introduced by Salkovskis (1985) refers to a tendency for people with OCD to feel an exaggerated sense of responsibility for actual, imagined, or anticipated misfortunes, to feel pivotally responsible for such misfortunes.

As described earlier, inflated responsibility can be a vulnerability factor and/or an interpretation placed on an event or thought (Salkovskis 1985; Obsessive Compulsive Cognitions Working Group 1997, 2001). In the present discussion, the same two properties of inflated responsibility can be discerned. People who are prone to feel exaggerated responsibility, especially for preventing misfortunes, are bound to be easily inclined to make catastrophic misinterpretations of their unwanted intrusive thoughts, particularly when the thoughts/impulses involve potential harm to others. They will also experience intense responsibility for the effects and/or immorality of their bad thoughts, as exemplified best in the cognitive bias of TAF: 'My harmful thought increases the probability that my friends/relatives will come to harm, perhaps be injured or even die'; 'I am responsible, I am to blame' (see Rachman 1993). The precise connections between inflated responsibility (both as a factor contributing to one's vulnerability to obsession and as a biased style of interpreting one's cognitions) and the mechanisms of obsessions remain to be established.

Who is vulnerable?

As with Clark's (1986) theory of panic, the people who are vulnerable (to obsessions) are those who are prone to make catastrophic misinterpretations (of the significance of their intrusive thoughts).

As a general background, people who are taught, or learn, that all of their value-laden thoughts are of significance, will be more prone to obsessions—as in particular types of religious beliefs and instruction. Striving to be moral, all of one's actions and thoughts must strive for virtue—moral perfectionism. Immoral thoughts are interpreted as comparable to, or even equivalent to, immoral actions. Some of the great religious leaders were subject to intrusive obsessions (see Rachman and Hodgson 1980). Plainly, not all people with highly elevated religious or moral standards suffer from abnormal obsessions. There must be additional contributory factors.



The proneness to use, or be led by, particular cognitive biases, is another vulnerability factor. TAF is a prime candidate here because of the assumed connection between the thought and the feared action/event. This bias also inflates one's sense of responsibility, and elevated responsibility is itself a vulnerability factor (Salkovskis 1985; Salkovskis and Kirk 1997).

Undoubtedly, depression increases one's vulnerability to obsessions (e.g. Ricciardi and McNally 1995), so this must be included as a risk factor for obsessions. It remains to be seen what the mechanism is—does depression promote obsessions by altering the way in which one interprets the intrusive thoughts, perhaps by giving the most pessimistic explanation? Here, Beck's (1976) theory of depression is relevant but the details will need to be worked out. Another factor is that in a state of depression, the person's self-evaluation is already negative (e.g. I am worthless, immoral) and, therefore, serious misinterpretations of the meaning of one's intrusive thoughts fall into well-prepared ground.

A fourth contributor is anxiety proneness itself, because it is known that anxiety-provoking materials, such as films, specific stressors, etc., increase the frequency of intrusive thoughts, the raw material out of which obsessions emerge. So people who react with anxiety to a wide range of stimuli/situations will experience many more intrusive thoughts, and if the significance of one or many of these thoughts is catastrophically misinterpreted, then obsessions take occupation.

At this stage then, at least four vulnerability factors can be postulated:

- 1 elevated moral standards;
- 2 particular cognitive biases;
- 3 depression;
- 4 anxiety.

None of these is novel, but in the present theory they are integrated and set out in a manner that invites direct testing. Research testing of the theory is in its early stages but the results are promising. For example, Purdon (2001) showed that when participants interpreted their thought recurrences as signifying unpleasant personal characteristics, or of foretelling misfortune, they reported increases in anxiety and a negative mood state.

Treatment implications

It follows from the theory that the most direct and satisfactory treatment of obsessions is to assist patients in the modification of the putatively causal catastrophic misinterpretations of the significance of their intrusive thoughts. Bluntly, if these misinterpretations are 'corrected', the obsessions should cease (see Rachman 1998).

As the treatment is focused on changing the misinterpretations of the significance of the intrusive thoughts, the first step is educational. Patients are informed that unwanted intrusive thoughts/images/impulses are commonplace, indeed nearly universal—a printed list of common examples is helpful here. Learning that obsession is a well-recognized problem helps to dissolve some guilt and anxiety, especially if the obsession has been concealed as a private secret fear and a cause for shame.

The second step is to inform them that intrusive thoughts, including their own obsessions, are not signs of some deep, concealed part of their character—they are not revealing of character. Moreover, some greatly admired public figures, such as Bunyan, have suffered from obsessions. Far more important than these uninvited, unwanted, fragmentary thoughts are the patient's personal history, achievements, values, standards, and conduct. These are what matter—these are the 'revealing' qualities of one's character.

The next stage is to collect a full account of the content of the obsessions and to discuss the content in a calm, dispassionate manner—as a clinical problem rather than as previously, a cause of shame, distress, and threat. Encouraging the patient to describe and then record the occurrence of the obsession, in a preferably boring and mechanical form, helps to detoxify the obsession, to change its significance.

The collection of this information is then used, in the usual way of cognitive therapy (e.g. Steketee 1994; Salkovskis 1999), as a basis for assessing the patient's interpretation of the obsession. As ever, the patient is encouraged to construct alternative interpretations of the intrusive thoughts and to match the available evidence for and against the original catastrophic significance and the alternatives (for excellent advice on changing the appraisals see Freeston *et al.* 1996). This may include behavioural experiments designed to collect new evidence that permits tests of the different interpretations.

The patient is encouraged at this stage to interpret the unwanted intrusive thoughts as 'noise' rather than as the true signal. The analogy of a radio can be helpful here—when a radio is off-station, we try to scan out the noise, the better to receive the true signal.

The avoidance behaviour that results from the obsessions is tackled in the usual way: encouraging the patients gradually and steadily to expose themselves to the anxiety-evoking situations (e.g. spending increasing amounts of time with children).

Cognitive therapists have yet to establish powerful methods for reducing cognitive biases, and, indeed, until recently there was pessimism about whether any such biases could be removed (e.g. Dawes *et al.* 1989). In the context of medical clinical reasoning, Arkes (1981) suggest the following tactics to minimize biases:

- ◆ avoid dichotomous judgments;
- ◆ take into account non-occurrences of events;
- ◆ consider the alternatives;
- ◆ collect disconfirmatory evidence;
- ◆ think Bayesian.

Some of these tactics can be adapted for the treatment of obsessions. Given the important role of inflated responsibility in OCD (Salkovskis 1985), and in obsessions in particular, the therapist should assist the affected patients to deflate this problem (see Salkovskis and Kirk 1997).

This combination of tactics should prove useful, but the focus on modifying the putative misinterpretations of the significance of the intrusive thoughts is maintained throughout.

The nature and measurement of 'significance'

The defining quality of the significance attached to intrusive thoughts is the person's belief that the thought (image, impulse) is meaningful and it is important; it is not trivial, it is not meaningless but is revealing about me. A second feature of this significance is that it is personalized, the thought is my own and it is especially important to me in particular: 'My recurrent images of committing incestuous acts with my young sister reveal that I, in particular, am deeply flawed and immoral'; 'My recurrent violent impulses to assault children reveal that I, in particular, am a potentially dangerous and evil person'. Third, the thought is alien to me, ego-alien. Fourth, the thought is believed to have potential consequences; it is not a mere passing thought bereft of any future. Fifth, the potential consequences are serious. There are unusual exceptions in which the obsession appears to be meaningless or the consequences are not unusually serious. Examples of nonsensical obsessions, such as recurrent and distressingly persistent advertisement jingles, can give rise to interpretations of serious mental illness (my mind is out of control, this is a sign of impending mental illness).

All of these interpretations of unwanted intrusive thoughts, and more to come, can and should be assessed. The thought/image/impulse can be rated on several dimensions:

- ◆ it is meaningful
- ◆ it is revealing about me
- ◆ it is important
- ◆ it is my thought

- ◆ it has special meaning for me
- ◆ the thought is alien to my values and beliefs
- ◆ it is personalized
- ◆ it has potential consequences
- ◆ these potential consequences are serious
- ◆ I have to do whatever I can to stop the thought (or its consequences)
- ◆ I have to take special care to avoid acting on the thought.

These are set out as for an assessment of a particular thought/image/impulse and, wherever possible, particularity should be pursued. Of course there will be instances in which a theme or cluster of several thoughts may need to be assessed.

Useful progress has been made by the international working group that was established to develop methods for assessing obsessive beliefs and obsessive interpretations of intrusive thoughts (Obsessive Compulsive Cognitions Working Group 1997, 2001; Frost and Steketee 2002).

Summary

Starting from the premise that unwanted intrusive thoughts are the basis of obsession, and encouraged by the finding that these thoughts are almost universally experienced, the behavioural theory of obsession was developed into a cognitive theory, based on the work of Clark and Salkovskis. It is postulated that obsessions are caused by catastrophic misinterpretations of the significance of one's unwanted intrusive thoughts. By deduction, any increase in such interpretations will produce or increase the obsessions. Similarly, any reduction in such misinterpretations will be followed by a reduction in obsessions.