



PERGAMON

Behaviour Research and Therapy 40 (2002) 773–791

**BEHAVIOUR  
RESEARCH AND  
THERAPY**

www.elsevier.com/locate/brat

# Clinical perfectionism: a cognitive–behavioural analysis

Roz Shafran<sup>\*</sup>, Zafra Cooper, Christopher G. Fairburn

*Department of Psychiatry, Warneford Hospital, Oxford University, Oxford, OX3 7JX, UK*

Accepted 25 April 2001

---

## Abstract

This paper reviews the characteristics of clinical perfectionism and proposes a new definition of the phenomenon. It is suggested that the defining feature of clinically significant perfectionism is the overdependence of self-evaluation on the determined pursuit (and achievement) of self-imposed personally demanding standards of performance in at least one salient domain, despite the occurrence of adverse consequences.

It is suggested that such clinical perfectionism is maintained by the biased evaluation of the pursuit and achievement of personally demanding standards. Specifically, it is suggested that people with perfectionism react to failure to meet their standards with self-criticism. If they do meet their standards, the standards are re-evaluated as being insufficiently demanding. Anorexia nervosa and bulimia nervosa are considered to have a particular relationship to perfectionism, with both disorders often being direct expressions of perfectionism. Under these circumstances self-evaluation is dependent on the pursuit and attainment of personally demanding standards in the domain of control over eating, shape and weight. The implications of this analysis for research and practice are considered. © 2002 Elsevier Science Ltd. All rights reserved.

*Keywords:* Perfectionism; Cognitive–behavioural; Treatment; Eating disorders; Self-evaluation

---

## 1. Introduction

Perfectionism appears to play an important role in the aetiology, maintenance and course of certain psychopathological states. It has been identified as a specific risk factor for the development of anorexia nervosa (Fairburn, Cooper, Doll, & Welch, 1999; Lilenfeld et al., 1998) and bulimia nervosa (Fairburn et al., 1998; Lilenfeld et al., 2000). There is evidence that it may impede the successful treatment of depression (Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998)

---

<sup>\*</sup> Corresponding author. Fax: +44-1865-226-244.

*E-mail address:* roz.shafran@psych.ox.ac.uk (R. Shafran).

and it is a central element of obsessive-compulsive personality disorder (American Psychiatric Association, 1994). Despite this, perfectionism is an ill-defined and poorly understood phenomenon.

As currently used, the construct of perfectionism can be ‘normal’ (Hamachek, 1978) and ‘positive’ (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993) or ‘neurotic’ (Hamachek, 1978) and ‘dysfunctional’ (Frost et al., 1993). When the pursuit of excellence is functional and positive, it has little clinical relevance (Burns, 1980). We consider that it is unhelpful to confuse this functional pursuit of excellence (which may be termed normal ‘high standards’) with dysfunctional perfectionism seen in clinical samples, the crucial distinguishing feature being that in clinical samples, high standards are being pursued despite significant adverse consequences (see later). In order to improve the understanding and treatment of perfectionism in patients, we suggest that the construct should be restricted to phenomena of clinical relevance. For this reason, the remainder of the paper addresses the psychopathological form of perfectionism.

## 2. The characteristics of perfectionism

The particular characteristics of perfectionism have been well described by clinicians such as Hamachek (1978). Hamachek observed that people with perfectionism “stew endlessly in emotional juices of their own brewing about whether they’re doing it [the task] just right. For stewers, the tasks that they take on do not translate into just doing one’s best but, rather, doing better than has ever been done before” (p. 27). These are people “whose efforts—even their best ones—never seem quite good enough, at least in their own eyes. It always seems to these persons that they could—and should—do better...” (p. 27).

Such people “demand of themselves a higher level of performance than is usually possible to attain. And this, of course, severely reduces their possibilities for feeling good about themselves” (p. 27). The reason for these self-imposed personally demanding standards is that they “are motivated not so much by a desire for improvement as they are by a fear of failure. Fear leads to avoidance behavior and avoidance behavior means that one must be constantly on the alert and on the defensive to avoid that which one fears.” (p. 28). People with perfectionism “establish unreasonably high personal standards” (p. 28) and “may over-value performance and undervalue the self” (p. 29).

Hollender (1965, 1978) also provides detailed accounts of people with perfectionism. He draws attention to cognitive processes that maintain perfectionism, such as selective attention whereby the person is “constantly on the alert for what is wrong and seldom focuses on what is right. He looks so intently for defects or flaws that he lives his life as though he were an inspector at the end of a production line” (Hollender, 1965, p. 95). The person with perfectionism “sees himself as being judged by what he does, not for what he is” (Hollender, 1965, p. 99). Hollender (1965) suggests that such people engage in ‘self-belittlement’.

This characteristic dependence of self-evaluation on success in people with perfectionism is also highlighted by Burns (1980). He notes that people with perfectionism set unrealistically high standards, rigidly adhere to them, interpret events in a distorted manner, and define themselves in terms of their ability to achieve their goals (Burns, 1980).

These clinical descriptions and those of others (e.g. Pacht, 1984) are remarkably consistent. They emphasise both the self-imposed nature of standards that are personally demanding, and that self-evaluation is dependent upon success and achievement in people with perfectionism. There is also agreement that people with perfectionism pay particular attention to their perceived failures at the expense of their successes, and that their perfectionism has adverse consequences. These clinical descriptions suggest that people with perfectionism tend to be highly self-critical as a result of perceived deficits in their performance.

### 3. Definitions of perfectionism

Various attempts have been made to define the construct of perfectionism. It has been defined as “the tyranny of the shoulds” (Horney, 1950) and as “the practice of demanding of oneself or others a higher quality of performance than is required by the situation” (see Hollender, 1965, p. 94). Burns (1980) defines people with perfectionism as “those whose standards are high beyond reach or reason, people who strain compulsively and unremittingly toward impossible goals and who measure their own worth entirely in terms of productivity and accomplishment. For these people, the drive to excel can only be self-defeating.” Frost, Marten, Lahart, and Rosenblate (1990) have defined perfectionism as “the setting of excessively high standards for performance accompanied by overly critical self-evaluation” (Frost et al., 1990). The Obsessive Compulsive Cognitions Working Group (of which Frost is a joint chair) have defined perfectionism with respect to obsessive-compulsive disorder as “the tendency to believe there is a perfect solution to every problem, that doing something perfectly (i.e., mistake-free) is not only possible, but also necessary, and that even minor mistakes will have serious consequences” (OCCWG, 1997).

#### 3.1. A multidimensional approach to perfectionism

An early attempt to measure perfectionism was the perfectionism subscale of the Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978) and its adaptation by Burns (1980). These scales both regarded perfectionism as unidimensional. The ‘success-perfectionism’ subscale of the DAS included items that ascertained the relationship between the dependence of self-evaluation on attainment (e.g., ‘if I fail at my work, then I am a failure as a person’). A similar unidimensional measure of perfectionism developed in the early 1980s formed a subscale of the widely-used Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983).

In the early 1990s perfectionism became viewed as a multidimensional construct. This change in perspective was for two reasons. First, it was argued that the clinical descriptions of people with perfectionism described them as being overconcerned with mistakes, doubting the quality of one’s work, placing considerable value on their parents’ expectations, and overemphasizing orderliness (Frost et al., 1990). Second, independent clinical observation led to the view that perfectionism also has its interpersonal aspects and that these are important in adjustment difficulties. (Hewitt & Flett, 1991a).

Independent research groups developed their own multidimensional perfectionism scales to

assess the ‘dimensions’ that they considered comprise perfectionism. The measure of Frost et al. (1990) covers (i) ‘Concern over Mistakes’ (reacting negatively to mistakes, interpreting mistakes as equivalent to failure and fearing that one will lose the respect of others following failure, e.g. ‘I should be upset if I make a mistake’, ‘If I fail partly, it is as bad as being a complete failure’, ‘People will probably think less of me if I make a mistake’, ‘The fewer mistakes I make, the more people will like me’), (ii) ‘Doubts about Actions’ (doubting the quality of one’s performance), (iii) ‘Personal Standards’ (setting of very high standards and the excessive importance placed on these high standards for self-evaluation, e.g. ‘I have extremely high goals’), (iv) ‘Parental Expectations’ (perceiving that one’s parents have high expectations) and (v) ‘Parental Criticism’ (perceiving one’s parents as being excessively critical). Some of the items address current beliefs (e.g. ‘People will think less of me if I make a mistake’) whereas others refer to past situations.

The multidimensional scale of Hewitt and Flett (1991a) consists of three subscales. Like Frost’s subscale assessing personal standards, ‘Self-oriented perfectionism’ addresses many of the clinical features described earlier including setting exacting standards for oneself, evaluating one’s own behaviour stringently and striving to attain perfection in one’s own endeavours as well as striving to avoid failure. However, a second subscale measures ‘Other-oriented perfectionism’. This is defined as having unrealistically high standards for the behaviour of significant others (e.g. ‘everything that others do must be of top-notch quality’). And a third subscale, ‘Socially-oriented perfectionism’ assesses the belief that others have unrealistically high standards for the individual, that they stringently evaluate the individual, and that they exert pressure to be perfect (e.g. ‘people expect nothing less than perfection from me’, ‘I find it difficult to meet others’ expectations of me’ and ‘The people around me expect me to succeed at everything I do’).

### 3.2. A critique of the multidimensional approach to perfectionism

The widespread use of these two multidimensional measures has led to the acceptance of perfectionism as a multidimensional construct. We suggest that this has resulted in the concept being too readily equated with its method of measurement. Rather than remaining an independent theoretically and clinically-based construct, ‘perfectionism’ is now usually equated with the scores on either of the two multidimensional self-report instruments designed to assess it. The major difficulty with this is that, in our view, the current measures assess a broader range of features than those described by clinicians and early theorists as characteristics of perfectionism. Only ‘self-oriented perfectionism’, ‘personal standards’ and some items on the ‘concern over mistakes’ subscales come close to assessing the construct of perfectionism as it is described, and even then there are few items that refer to self-evaluation.

We suggest that the additional dimensions do not assess perfectionism per se, but assess *related* constructs. Beliefs about other people’s standards (‘other-oriented perfectionism’), and the perception that others have unrealistically high standards for the individual and that they exert pressure on them to be perfect (‘socially-prescribed perfectionism’) are both constructs that may be associated with perfectionism rather than being integral elements of perfectionism. For example, a patient believed that other people had excessively high standards and that they exerted pressure on her to be perfect, but she had an alternative lifestyle and clearly stated that she did not have any desire for perfection.

The same argument may be applied to dimensions such as ‘concern over mistakes’, ‘doubts about actions’, ‘parental expectations’, and ‘parental criticism’. It would be expected that people with perfectionism would show an elevation in concern over mistakes due to their fear of failure and they might also be more doubtful as to whether actions had been performed correctly. However, we suggest that the critical component is the impact of mistakes on self-evaluation. Two (or possibly three) of the nine items on the ‘concern over mistakes’ subscale refer to self-evaluation, i.e. ‘If I fail at work/school, I am a failure as a person’ and ‘If I do not do as well as other people, it means I am an inferior human being’. Of note, these particular items do not specifically refer to ‘mistakes’. Other items refer to the impact of mistakes on other people (e.g. ‘other people will think less of me if I make a mistake’) and negative reactions to mistakes (e.g. ‘I should be upset if I make a mistake’). Again, it is our view that overall such items (and others) assess variables relevant to perfectionism but not the construct itself.

### 3.3. *The existing literature*

Despite the problems with the broadening of the construct of perfectionism, it is worthwhile looking at how the existing literature on perfectionism can further our understanding of the core concept. A recent review of the research findings using the multidimensional measures (Shafran & Mansell, 2001) indicates that self-oriented perfectionism and high personal standards (the dimensions closest to the clinical concept of perfectionism) are elevated in patients with eating disorders compared to normal controls (e.g. Bastiani, Rao, Weltzin, & Kaye, 1995; Davis, 1997; Srinivasagam et al., 1995; Halmi et al., 2000). These dimensions are not elevated in patients with anxiety disorders (Antony, Purdon, Huta, & Swinson, 1998; Frost & Steketee, 1997; Saboonchi, Lundh, & Ost, 1999; Juster, Heimberg, Frost, & Holt, 1996; Hewitt & Flett, 1991a) and may be elevated in depressed inpatients (Hewitt & Flett, 1991b) but this finding is not reliable (e.g. Hewitt & Flett, 1991a; Hewitt, Flett, & Ediger, 1996).

‘Socially-prescribed perfectionism’ is often correlated with the degree of psychopathology, such as levels of depression (e.g. Hewitt & Flett, 1991a; Flett, Hewitt, Blankstein, & O’Brien, 1991; Hewitt et al., 1996; Wyatt & Gilbert, 1998) and social anxiety (Blankstein, Flett, Hewitt, & Eng, 1993; Saboonchi & Lundh, 1997). ‘Concern over mistakes’ (the subscale that includes items on self-evaluation) has shown to be elevated in patients with social phobia (Juster et al., 1996; Saboonchi et al., 1999) and this dimension has been shown to be positively associated with psychopathology (Juster et al., 1996); Antony et al. (1998) found an elevation in many of the subscales across anxiety disorders as compared to their normal controls.

A close look at the items on subscales most commonly associated with psychopathology (the ‘socially prescribed’ subscale and ‘concern over mistakes’ subscale) reveals a common theme of negative beliefs regarding other people’s expectations and evaluations of the individual: For example, ‘The better I do, the better I am expected to do’, ‘Although they may not show it, other people get very upset with me when I slip up’; ‘The fewer mistakes I make, the more people will like me’; ‘People will probably think less of me if I make a mistake’. We suggest that such beliefs may have clinical implications, particularly in the social domain but, in our view, these beliefs are not integral to the construct of perfectionism with its intrinsic notion of self-motivated, self-imposed, personally demanding standards.

We suggest that the failure to distinguish between perfectionism and associated features is part of the reason that the past decade of research using a multidimensional approach to perfectionism has yielded few advances in the theoretical understanding or clinical treatment of specific psychiatric disorders. Advances in psychological treatment have arisen from understanding the specific psychopathological characteristics of disorders such as panic disorder (Clark, 1986) and bulimia nervosa (Fairburn, 1981). If perfectionism plays a core role in psychopathology (which it might), then we need a clearly defined notion (not a group of constructs) to investigate it.

#### 4. A cognitive-behavioural definition of perfectionism

In order to understand clinically-relevant perfectionism, it is necessary to define the construct in a way that captures its core characteristics. We propose that clinically relevant perfectionism be defined as: *the overdependence of self-evaluation on the determined pursuit of personally demanding, self-imposed, standards in at least one highly salient domain, despite adverse consequences*. What this definition suggests is that people with perfectionism have a scheme for evaluating themselves that is dysfunctional in two ways. First, it is overly dependent on one area i.e., striving for and achieving personally demanding standards. Such overdependence means that self-evaluation is extremely vulnerable and failure to meet those standards results in self-criticism and negative self-evaluation. Second, the scheme for self-evaluation is highly dependent upon the domain in which the perfectionism is expressed. For example, if self-evaluation is dependent on continuous striving to meet personally demanding standards in the domain of weight loss, then psychological (and potentially physical) dysfunction will result. We suggest that this core psychopathology whereby the person's scheme for self-evaluation is overly dependent on standards, explains the continuous striving of people with perfectionism to attain their goals. It also explains their criticism, 'self-belittlement', fear of failure, and their inability to relinquish standards even when they are not met and result in adverse consequences.

Considering the overdependence of self-evaluation as part of the psychopathology of perfectionism is consistent with the view that simply using standard-setting as the sole determinant of perfectionism is inadequate. Other factors must be taken into account since some people set themselves personally demanding standards and strive for them in a way that is positive (Frost et al., 1993), leads to feelings of satisfaction (Terry-Short, Owens, Slade, & Dewey, 1995) and is 'normal' (Hamachek, 1978). The definition emphasizes the dependence of the person's view of himself or herself on striving and meeting standards and the self-criticism that can result from perceived failure. This distinguishes clinical perfectionism from the 'healthy pursuit of excellence'.

An important part of the construct of clinically relevant perfectionism is that it is dysfunctional. We suggest that pathological perfectionism is present when personally demanding standards are pursued despite significant adverse consequences. These consequences may be emotional (e.g. depression), social (e.g. social isolation), physical (e.g. insomnia), cognitive (e.g. impaired concentration) or behavioural (e.g. repeated checking of work, repeated redoing of work, excessive time taken to complete tasks; Rhéaume et al., 2000). They are tolerated because that the person's self-evaluation is contingent on the pursuit and attainment of their goals. Furthermore, these consequences may not be viewed by the person as aversive since they may be interpreted as evidence of true striving (see later).

Embedded in the above definition is the acknowledgement that the standards which people with perfectionism pursue are self-imposed, although they need not have been originally, and they well **may be condoned by others (Hamachek, 1978). It is the adoption of these standards as their own that is suggested to be fundamental to the construct of perfectionism.**

A core feature of perfectionism that is incorporated into this definition relates to the nature of the standard that is being pursued. Current definitions of perfectionism imply that the standards pursued are objectively high or excessive, given the situation. However, clinical experience indicates that whilst the standards people pursue are often of this nature, this is not necessarily the case; rather the essential feature is that they have to be high and *demanding for that individual*. For example, it is not uncommon for patients to be perfectionist in terms of always trying to do their best in any social situation. Although an objective standard may not apply (a conversation with a friend would evoke the same effort to pursue the standard as a dinner party with the boss), nevertheless the standard demands significant personal effort. The *personally* demanding nature of these standards also helps to explain why people with perfectionism are always striving to do 'better'. If their standard for performance is met, it is usually viewed as insufficiently personally demanding and is therefore raised.

People with perfectionism have high standards in domains of life that have personal significance but not in domains of little or no personal relevance. A woman with anorexia nervosa may be determinedly pursuing personally demanding standards of dietary restriction and, typically, work. However, she is unlikely to be pursuing equivalently demanding standards in domains such as football or gardening since these are unlikely to be areas that are important to her. Awareness of the importance of domains is acknowledged in the composition of the Perfectionism Questionnaire of Rhéaume, Freeston, and Ladouceur (1995) which contains three subscales, one of which is 'domains affected by perfectionism'.

## 5. The maintenance of perfectionism

A number of processes arise from the core psychopathology of perfectionism and are hypothesised to contribute to the maintenance of perfectionism. These are summarised in Fig. 1.

### 5.1. Core psychopathology and the morbid fear of failure

**The core psychopathology of perfectionism is expressed as a morbid fear of failure and the relentless pursuit of success.**<sup>1</sup> For people with perfectionism, any perceived failure in their relevant domain results in self-criticism and maintains their negative view of themselves. It also strengthens the dependence of their view of themselves on striving and achieving their goals. This hypothesis is consistent with data demonstrating a negative relationship between fear of failure and self-

---

<sup>1</sup> These are terms adapted from the literature on the psychopathology of anorexia nervosa and bulimia nervosa (see later).

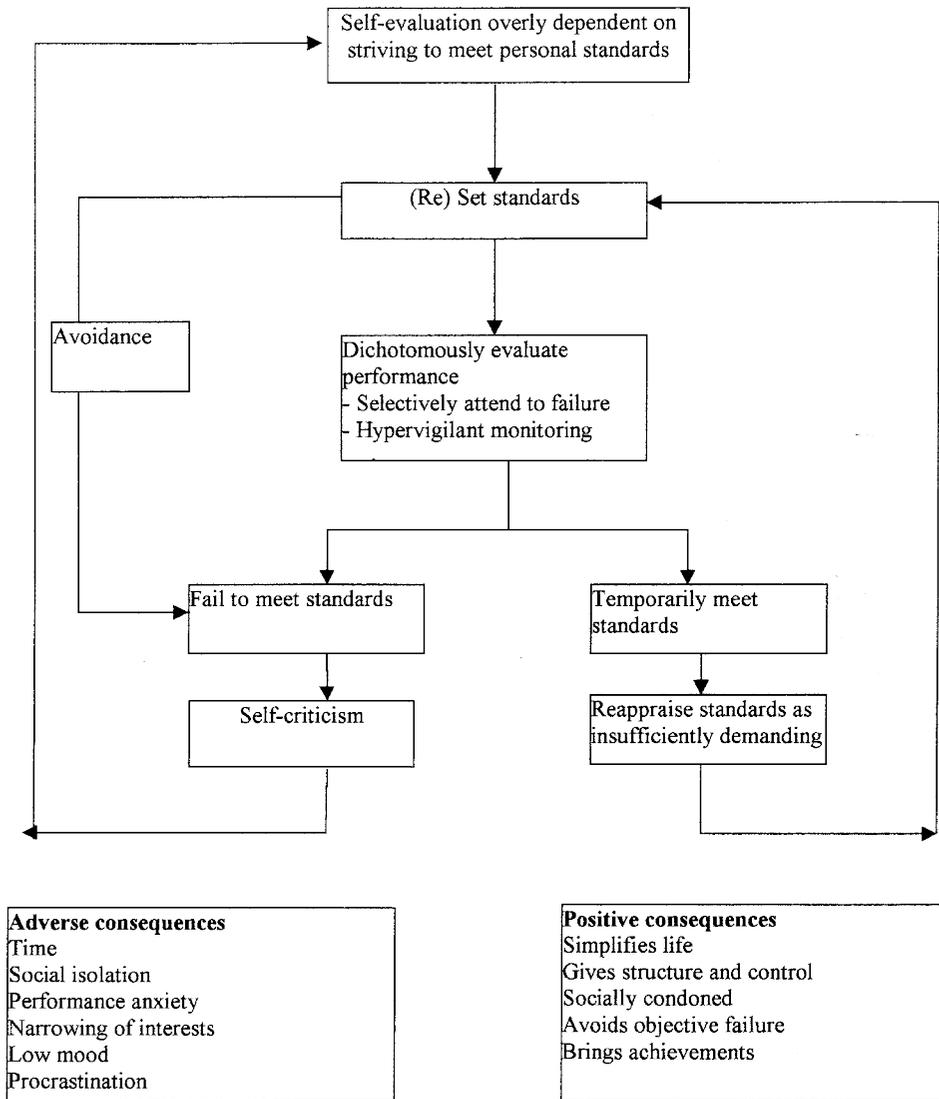


Fig. 1. The maintenance of perfectionism.

esteem (e.g. Joubert, 1990) and that ‘self-oriented perfectionism’ is associated with an inability to tolerate failure (Flett, Hewitt, Blankstein, & Mosher, 1991) and fear of failure (Flett, Blankstein, Hewitt, & Koledin, 1992).

### 5.2. Setting of standards that embody dichotomous thinking

It is proposed that people with perfectionism internally operationalise their standards in the form of rules. For example, a patient whose goal was weight loss operationalised this as a daily rule that she had to weigh at least 1 lb less than the day before. Such rules are, by their nature, dichotomous; they are either met or they are not. It is unsurprising therefore that people with perfectionism are characterised as having ‘all-or-nothing’ thinking (see Antony & Swinson, 1998; Beck, 1995; Greenberger & Padesky, 1995). Attempting to adhere to these multiple strict rules means that the person is dominated by ‘shoulds’ and by guilt and self-recrimination when a rule is transgressed.

### 5.3. The need for self-control

People with perfectionism dedicate themselves to the pursuit of their personally demanding standards. Such dedication requires a great deal of self-control: indeed, self-control is fundamental to their pursuit and attainment of their goals.<sup>2</sup> Usually this self-control involves limiting pleasurable activities that are not directly relevant to the pursuit of the goal and eschewing any form of ‘indulgence’. For example, the above patient decided that in order to attain weight loss of 1 lb per day, it would be necessary to eat only what was absolutely necessary to stay alive. Anything in excess of this was ‘greedy’ and immoral. The relationship between self-control and perfectionism in eating disorders is discussed more fully later on.

### 5.4. Evaluation of performance

Once personally demanding standards have been set, performance in the relevant domain is evaluated repeatedly and strictly. In this context, ‘performance’ refers not only to the achievement of the particular goal but also to the person’s ‘performance’ in terms of their pursuit of the goal. For example, not only did the patient above evaluate whether she weighed less each day, but she also evaluated herself in terms of the extent to which she had striven for the weight loss (e.g. managing to resist eating despite strong feelings of hunger). It is suggested that some people use the adverse consequences of their striving as evidence that their standards and their performance in pursuing them are indeed sufficiently demanding. For example, a patient interpreted the fact that she was sleeping for only 4 hours per night as evidence that she was working hard and ‘doing her best’.

### 5.5. Failure to meet standards

We suggest that people with clinical perfectionism evaluate their standards and performance in a biased way. Such biases include selective attention to ‘failure’ and the discounting of ‘success’

<sup>2</sup> We thank S. Rachman for highlighting this point.

(Antony & Swinson, 1998; Burns, 1980; Hamachek, 1978; Hollender, 1965). This involves paying more attention to perceived or actual errors in performance than to the parts of performance that were error-free. It is related to the pursuit of the standards: in a typical example, a patient selectively attended to, and recalled, times when she did not adhere to her work schedule but ignored the instances when she successfully adhered to it. We suggest that such biases do not necessarily operate in people who have high ‘concerns about mistakes’ (consistent with the finding that students who were concerned about mistakes did not note more errors than those who were not concerned about mistakes; Frost, Trepanier, Brown, & Heimberg, 1997). Rather, these biases operate in people whose self-evaluation is dependent on the pursuit and attainment of their personal standards, and they occur in the context of hypervigilant monitoring for times when the person has not met his/her standards.

Such hypervigilant monitoring commonly involves checking behaviour that can be overt (e.g. repeatedly summing numbers in a column, or re-reading work) or covert (e.g. replaying a competition in one’s head and scrutinising one’s performance). This checking behaviour may be influenced by ‘doubts about actions’.

It is suggested that the information processing biases interact and thereby increase the likelihood that people will fail to meet their standards. For example, a person may replay a conversation repeatedly in his/her head to check for minor transgressions. On identifying such a situation (e.g. failing to make the perceived ideal response to a question), she/he is likely to dwell on this and ignore the other aspects of the social situation.

It is inevitable that for some people the pursuit of their standards and their fear of failure to meet them becomes so aversive that they delay beginning tasks (procrastination), abandon them midway or avoid them entirely (Antony & Swinson, 1998; Burns, 1980; Frost et al., 1990; Slade & Owens, 1998). A detailed analysis of the relationship between procrastination and the multidimensional measures has led to the suggestion that procrastination is a response to a form of social evaluation that involves the perceived imposition of unrealistic expectations on the self (Flett, Hewitt, & Martin, 1995). Procrastination is often seen in the weighing behaviour of patients with eating disorders who commonly convert from frequent weighing (to detect performance at weight loss) to the avoidance of weighing altogether (Fairburn, 1995). Such avoidance is no solution, however, since their concerns remain unchanged and they continue to anticipate that they will fail to meet their standards.

It is suggested that people with perfectionism will be self-critical and evaluate themselves negatively after failing to meet their standards. This notion is consistent with clinical descriptions and is encapsulated in the item on the Burns Perfectionism Scale (Burns, 1980) ‘Failing at something important means that I am less of person’. (Of interest, there is a similar item—‘If I fail at work/school, I am a failure as a person’—that is strangely on the subscale ‘Concern over Mistakes’ (Frost et al., 1990). Interpreting failure in this way maintains self-criticism and strengthens the association between the pursuit and achievement of these standards and the person’s scheme for self-evaluation.

### 5.6. Successfully meeting standards

It is not uncommon for people with clinical perfectionism to occasionally meet their stringent standards. This ‘success’ has two consequences. First, it temporarily improves self-evaluation (or

avoids negative self-evaluation), and serves as an intermittent reinforcer of the pursuit of these standards (Burns, 1980). Secondly, however, the standards are immediately re-appraised as being too low. **If the person's standards are achievable, then they are considered to have been insufficiently demanding.** For example, a patient who achieved the top mark in her degree considered that her subject was a particularly easy one in which to attain this. She justified this by saying that since there were relatively few people reading her subject, she was not competing against the brightest students. She thought it would be unlikely that she would achieve this result in a 'proper' subject. A consequence of the resetting of standards is that it is even more likely that the person will experience failure, thus their self-criticism is likely to be maintained.

### 5.7. Other reasons for the persistence of perfectionism

Clinical perfectionism occurs in a social context in which the pursuit of high standards is often condoned. Patients with perfectionism often report high parental expectations and criticism (Frost, Lahart, & Rosenblate, 1991; Vieth & Trull, 1999). People who pursue and achieve high standards are frequently praised, receive rewards and do well objectively.

The determined pursuit of high standards may also have the indirect benefit of simplifying the person's life, and giving them a sense of structure and control. These positive aspects may outweigh or disguise objective adverse consequences such as performance anxiety, narrowing of interests, social isolation, exhaustion, low mood and a pervasive sense of failure.

## 6. Clinical perfectionism and comorbidity

It is rare for patients to present with perfectionism as an isolated clinical problem. Rather, it **is typically seen in conjunction with an Axis I or Axis II disorder. Perfectionism has been found to predict poor response to treatment for depression, regardless of treatment modality, and it has been suggested that it interferes with the development of the therapeutic alliance (Blatt et al., 1998; Zuroff et al., 2000).** This finding may also be attributable, in part, to the characteristics of clinical depression and their interaction with perfectionism. Patients with depression characteristically lack motivation and drive which increases the likelihood that they fail to meet their standards. In turn, this will maintain their negative self-evaluation and low mood.

We suggest that an interaction between clinical perfectionism and treatment response will be seen whenever the domain in which perfectionism is expressed overlaps with the domain affected by the psychiatric disorder. For example, if patients are perfectionist in terms of social performance and their psychiatric disorder is social phobia, we suggest that the presence of the perfectionism will serve as an additional maintaining mechanism and will thereby impede successful treatment. Similarly, if perfectionism is expressed in the domain of orderliness and the psychiatric disorder is obsessive-compulsive disorder, we suggest that perfectionism is likely to make this disorder more difficult to treat.

### 6.1. The special case of eating disorders

We suggest that anorexia nervosa and bulimia nervosa do not simply co-occur with clinical perfectionism but are in many cases the expression of perfectionism in the domain of eating,

shape or weight and their control. The self-evaluation of many people with eating disorders can be seen as depending on their striving for personally demanding standards of control over dietary restraint, or shape or weight, despite significant adverse consequences. There are at least three reasons to suggest that eating disorders may be an expression of perfectionism.

First, descriptions of patients with eating disorders, particularly anorexia nervosa, almost invariably highlight their perfectionistic traits (e.g. Bruch, 1976; Vitousek & Manke, 1994), and perfectionism has been suggested to play an important role in the maintenance of eating disorders (Slade, 1982). Indeed, perfectionism is viewed as being so integral to eating disorders that one of the most widely used measures of eating disorder psychopathology (the 'Eating Disorder Inventory') includes a subscale on perfectionism (Garner et al., 1983). Also, a specific measure of perfectionism in eating disorders has been developed (Mitzman, Slade, & Dewey, 1994).

According to the present account, people with perfectionism determinedly pursue their standards, despite adverse consequences. This is the case in eating disorders where patients stubbornly pursue standards of control over eating, weight or shape despite adverse consequences such as being markedly underweight, feeling persistently hungry, being vulnerable to binge eating, being preoccupied with thoughts about food, eating, shape and weight, and having difficulty eating with others. Standards are operationalised as dichotomous rules (e.g. I must not eat more than 1000 calories per day, I must not eat chocolate, sweets, biscuits, ice-cream, etc.; see Fairburn 1995, 1997). These rules, and the associated dichotomous thinking, render patients with bulimia nervosa vulnerable to temporarily abandoning their rules and binge eating if their rules are broken in any small way or their standards are not met (Fairburn, 1997; Tuschl, 1990; Ward, Hudson, & Bulik, 1993).

According to the present account of clinical perfectionism, failing to meet standards results in self-criticism and maintains negative self-evaluation. Cognitive-behavioural accounts of anorexia nervosa and bulimia nervosa have repeatedly emphasised that failing to meet standards of dietary restraint, shape or weight maintains the negative self-evaluation of these patients (Vitousek, 1996; Fairburn, 1997).

The second reason for suggesting that anorexia nervosa and bulimia nervosa may be an expression of clinical perfectionism is the specific elevation of 'self-oriented perfectionism' and 'personal standards' in people with eating disorders. Patients with eating disorders score significantly more highly on these subscales compared to normal controls (Bastiani et al., 1995; Halmi et al., 2000; Srinivasagam et al., 1995) and their mean scores are higher than those of patients with anxiety or depression from other studies (Antony et al., 1998; Hewitt & Flett, 1991a). This elevation in scores often persists after weight restoration (Kaye, Gendall, & Strober, 1998; Srinivasagam et al., 1995; Szabo & Terre-Blanche, 1997).

The third line of argument for suggesting that anorexia nervosa and bulimia nervosa may be an expression of clinical perfectionism is based on empirical data, using different methodologies, that demonstrate that perfectionism is a specific antecedent risk factor for the development of eating disorders. In a series of large-scale community studies of people with eating disorders, using a retrospective case-control methodology, perfectionism emerged as a specific risk factor for bulimia nervosa (Fairburn, Welch, Doll, Davies, & O'Connor, 1997) and anorexia nervosa (Fairburn, Shafran, & Cooper, 1999) but not binge eating disorder (Fairburn et al., 1998).

In a separate series of controlled family-genetic studies, an attempt has been made to identify personality traits that may influence vulnerability to the *development* of anorexia nervosa (Kaye

et al., 2000; Lilenfeld et al., 1998, 2002) and bulimia nervosa (Lilenfeld et al., 2000). The first of these studies (Lilenfeld et al., 1998) found that the risk of obsessive-compulsive personality disorder or OCPD (in which perfectionism is a diagnostic feature; see below) was elevated only among relatives of anorexic probands. In this study, the critical point is that OCPD was elevated among relatives of anorexic probands, regardless of whether the probands themselves had OCPD. The authors concluded that anorexia nervosa and obsessive-compulsive personality disorder may have shared familial risk factors. The second of these studies (Kaye et al., 2000; Lilenfeld et al., 2002) reported on probands with anorexia nervosa and siblings who had a lifetime diagnosis of anorexia nervosa or bulimia nervosa. The strongest vulnerability factor for the development of anorexia nervosa was a combination of five personality traits, one of which was perfectionism. In the third study (Lilenfeld et al., 2000) using a smaller sample of women with bulimia nervosa, matched control women and first-degree female relatives, female relatives of bulimics had elevated perfectionism, regardless of whether the relatives themselves had an eating disorder history. This led the authors to conclude that perfectionism was transmitted independently of an eating disorder and was of potential aetiological relevance for bulimia nervosa. In total, these studies suggest that perfectionism is partially genetically determined, and that it is strongly associated with the development of anorexia nervosa and bulimia nervosa. Despite the negative finding of one study (Mussell et al., 2000) we suggest that eating disorders are particularly intransigent when the eating disorder is a specific expression of perfectionism. In summary, we suggest that in patients for whom self-evaluation is dependent on striving to attain personal standards of control over eating, shape and weight, the eating disorder can be viewed as an expression of perfectionism. Such patients are likely to have perfectionism expressed in other domains. For patients whose self-evaluation is more dependent on their actual shape and weight (rather than striving) and who do not have perfectionism expressed in other domains, the eating disorder is less likely to be an expression of perfectionism.

## 6.2. Clinical perfectionism and obsessive-compulsive personality disorder

The studies above demonstrate a close relationship between eating disorders, perfectionism and OCPD. According to DSM-IV (American Psychiatric Association, 1994), a diagnosis of OCPD is made if four (or more) out of eight criteria are met. These criteria include (1) a preoccupation with details, rules and order, (2) perfectionism that interferes with task completion, (3) reluctance to delegate tasks and (4) rigidity and stubbornness. The majority of people with perfectionism alone are likely to meet these criteria and therefore be eligible for a diagnosis of OCPD.

There are, however, some notable differences between OCPD and perfectionism. Many people meeting diagnostic criteria for OCPD do so because they fulfil the other diagnostic features (e.g. overconscientiousness about morality, inability to discard worthless objects, miserliness). [It appears that such people are concerned with the *process* of task completion, whereas those with perfectionism are more concerned with achieving tasks.] Hence, although people with perfectionism are likely to meet diagnostic criteria for OCPD, this personality disorder can occur in the absence of perfectionism.

## 7. Hypotheses

This analysis is the first cognitive–behavioural account of the maintenance of clinical perfectionism that goes beyond a simple description of phenomenology to identify core maintaining mechanisms. Its main strengths are that it generates testable hypotheses and has specific implications for treatment. Among the hypotheses that may be derived from the analysis are the following:

1. Clinical perfectionism is maintained by:
  - ⊡ Biased evaluation of performance
  - ⊡ Re-appraising standards as being insufficiently demanding if they are met
  - ⊡ Reacting to failure with self-criticism
  - ⊡ Avoidance and procrastination of tasks in the salient domain
2. Clinical perfectionism impedes the successful treatment of Axis I disorders if the domain in which the perfectionism is expressed overlaps with the domain of the Axis I disorder.
3. Clinical perfectionism and self-evaluation are intimately related. Specifically,
  - ⊡ The self-evaluation of people with clinical perfectionism is overly dependent on the pursuit and attainment of personal standards in a salient domain, despite significant adverse consequences
  - ⊡ Clinical perfectionism is maintained by negative self-evaluation.

## 8. Implications for treatment

Cognitive–behavioural strategies for the treatment of perfectionism (Antony & Swinson, 1998; Burns, 1980; Ferguson & Rodway, 1994) have been described. Based on the present cognitive–behavioural analysis, we suggest that treatment of perfectionism should have four components.

First, it is important to help the patient to identify perfectionism as a problem, and to place it within a cognitive–behavioural formulation that makes sense to the person, and that informs treatment. Within the formulation, patients should be helped to recognise that part of the problem is the narrowness of their scheme for self-evaluation which is overly dependent on one particular aspect of their life, namely striving to achieve personally demanding standards. In addition, it may be the case the domain in which the perfectionism is expressed (and by which the patient evaluates himself/herself) is inherently dysfunctional (e.g., achieving thinness) and this should be identified. While the formulation should include a historical context, the emphasis should be on the processes that are maintaining the perfectionism.

The second component is establishing the goal of treatment. It is proposed that a major goal of treatment should be to broaden the patient's scheme for self-evaluation. To do so, therapists need to examine the patients' existing strategy for evaluating themselves (i.e., perfectionism). Then patients should be helped to identify and adopt alternative ways of thinking and behaving that will broaden their means of self-evaluation, choosing domains that are not inherently dysfunctional. It is suggested that increasing the number of domains that contribute to self-evaluation will improve it. If, for example, a person's self-evaluation is entirely dependent on having 'perfect'

social interactions, then it will be more fragile than if several domains are contributing to self-evaluation.

The third component of treatment involves using behavioural experiments to test competing hypotheses. For example, a patient compared her view of herself after staying at home restricting her eating to her self-evaluation after eating supper at a friend's house. Another patient whose perfectionism was expressed in the domain of social performance compared the quality of her social interactions with her peers when she attempted to have the 'perfect' social interaction compared with when she simply tried to focus on having fun. Such behavioural experiments will often include exposure to avoided situations (such as the house being messy, eating with friends).

The fourth component of treatment is the use of cognitive-behavioural methods to address the patients' personal standards and self-criticism in general. In practice, this involves helping patients to identify and change rules that embody dichotomous thinking (e.g. 'if the house is not totally tidy, it is an absolute mess'). Traditional cognitive methods such as cognitive restructuring and using a continuum to help decrease dichotomous thinking (Greenberger & Padesky, 1995) may all be used, as may behavioural experiments.

Attention also needs to be paid to the cognitive biases that maintain perfectionism, particularly selective attention to the possibility of failure (e.g. a negative comment on an essay, a flaw in a gymnastic performance) and the hypervigilant monitoring of performance (e.g. frequent weighing, post-event processing after social situations). Strategies may be adapted from existing approaches to perfectionism and self-esteem (see Antony & Swinson, 1998; Barrow & Moore, 1983; Burns, 1980; Fennell, 1998; Pacht, 1984) and from treatment procedures for specific disorders (e.g. post-event processing may be addressed using methods from the treatment of social phobia; Clark, 1997; Rachman, Gruter-Andrew, & Shafran, 2000) and intolerance of uncertainty may be tackled using procedures from the cognitive behavioural treatment of obsessive-compulsive disorder (Freeston et al., 1997). These methods include providing information about the nature of selective attention, keeping positive data logs, tolerating uncertainty, increasing engagement in relaxing and pleasurable activities, and exposure with response prevention.

## 9. Conclusion

A new definition and cognitive-behavioural conceptualisation of clinical perfectionism is proposed. The self-evaluation of people with clinically relevant perfectionism is viewed as overly dependent on the pursuit of personally demanding standards in at least one salient domain, despite adverse consequences. It is suggested that clinical perfectionism is maintained by the setting of dichotomous standards, evaluating the striving and attainment of performance in a biased way, self-criticism if the standards are not met in the salient domain and, if standards are met, re-appraising them as insufficiently demanding. Clinical perfectionism is hypothesised to contribute to the maintenance of comorbid Axis I disorders when the domain in which the perfectionism is expressed overlaps with the domain affected by the psychiatric disorder. It is argued that anorexia nervosa and bulimia nervosa can be the expression of clinical perfectionism in the domain of eating, shape or weight and their control. A series of testable hypotheses are outlined, and implications for treatment discussed. Evaluation of this analysis and its clinical utility is currently underway.

## Acknowledgements

The authors are grateful for the helpful comments of Melanie Fennell, Warren Mansell and the anonymous reviewers. RS is a Wellcome Trust Advanced Training Fellow (055112) and CGF is a Wellcome Trust Principal Research Fellow (046386). ZC is also supported by the Wellcome Trust (046386).

## References

- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders*. (4th ed.). Washington, DC: American Psychiatric Association.
- Antony, M. M., & Swinson, R. P. (1998). *When perfect isn't good enough: strategies for coping with perfectionism*. Oakland, CA: New Harbinger Publications, Inc.
- Antony, M. M., Purdon, C. L., Huta, V., & Swinson, R. P. (1998). Dimensions of perfectionism across the anxiety disorders. *Behaviour Research and Therapy*, 36, 1143–1154.
- Barrow, J. C., & Moore, C. A. (1983). Group interventions with perfectionist thinking. *Personnel and Guidance Journal*, 67, 612–615.
- Bastiani, A. M., Rao, R., Weltzin, T., & Kaye, W. H. (1995). Perfectionism in anorexia nervosa. *International Journal of Eating Disorders*, 17, 147–152.
- Beck, J. S. (1995). *Cognitive therapy: basics and beyond*. New York: Guilford Press.
- Blankstein, K. R., Flett, G. L., Hewitt, P. L., & Eng, A. (1993). Dimensions of perfectionism and irrational fears: An examination with the fear survey schedule. *Personality and Individual Differences*, 75, 323–328.
- Blatt, S. J., Zuroff, D. C., Bondi, C. M., Sanislow, C. A. 3RD, & Pilkonis, P. A. (1998). When and how perfectionism impedes the brief treatment of depression: further analyses of the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *Journal of Consulting and Clinical Psychology*, 66, 423–428.
- Bruch, H. (1976). The treatment of eating disorders. *Mayo Clinic Proceedings*, 51, 266–272.
- Burns, D. (1980). The perfectionist's script for self-defeat. *Psychology Today*, November, 34–52.
- Clark, D. M. (1986). A cognitive approach to panic. *Behaviour Research and Therapy*, 24, 461–470.
- Clark, D. M. (1997). Panic disorder and social phobia. In D. M. Clark, & C. G. Fairburn (Eds.), *Science and practice of cognitive behaviour therapy*. Oxford, UK: Oxford Medical Publications/Oxford University Press.
- Davis, C. (1997). Normal and neurotic perfectionism in eating disorders: an interactive model. *International Journal of Eating Disorders*, 22, 421–426.
- Fairburn, C. (1981). A cognitive behavioural approach to the treatment of bulimia. *Psychological Medicine*, 17, 707–711.
- Fairburn, C. G. (1995). Short-term psychological treatments for bulimia nervosa. In K. Brownell, & C. G. Fairburn (Eds.), *Eating disorders and obesity: A comprehensive handbook* (pp. 289–378). New York: The Guilford Press.
- Fairburn, C. G. (1997). Eating disorders. In D. M. Clark, & C. G. Fairburn (Eds.), *Science and practice of cognitive behaviour therapy*. Oxford: Oxford Medical Publications/Oxford University Press.
- Fairburn, C. G., Welch, S. L., Doll, H. A., Davies, B. A., & O'Connor, M. E. (1997). Risk factors for bulimia nervosa. A community-based case-control study. *Archives of General Psychiatry*, 54, 509–517.
- Fairburn, C. G., Doll, H. A., Welch, S. L., Hay, P. J., Davies, B. A., & O'Connor, M. E. (1998). Risk factors for binge eating disorder: a community based, case control study. *Archives of General Psychiatry*, 55, 425–432.
- Fairburn, C. G., Cooper, Z., Doll, H. A., & Welch, S. L. (1999). Risk factors for anorexia nervosa: three integrated case control comparisons. *Archives of General Psychiatry*, 56, 468–476.
- Fairburn, C. G., Shafran, R., & Cooper, Z. (1999). A cognitive-behavioural theory of anorexia nervosa. *Behaviour Research and Therapy*, 37, 1–13.
- Fennell, M. J. V. (1998). Low self-esteem. In N. Tarrow, A. Wells, & G. Haddock, *Treating complex cases: the cognitive behavioural therapy approach*. Wiley series in clinical psychology. Chichester, UK: John Wiley & Sons.
- Ferguson, K. L., & Rodway, G. R. (1994). Cognitive behavioral treatment of perfectionism: initial evaluation studies. *Research on Social Work Practice*, 4, 283–308.

- Flett, G. L., Blankstein, K. R., Hewitt, P. L., & Koledin, S. (1992). Components of perfectionism and procrastination in college students. *Social Behaviour and Personality*, 20, 85–94.
- Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Mosher, S. W. (1991). Perfectionism, self-actualisation, and personal adjustment. *Journal of Social Behavior and Personality*, 6, 147–150.
- Flett, G. L., Hewitt, P. L., Blankstein, K. R., & O'Brien, S. (1991). Perfectionism and learned resourcefulness in depression and self-esteem. *Personality and Individual Differences*, 12, 61–68.
- Flett, G. L., Hewitt, P. L., & Martin, T. R. (1995). Dimensions of perfectionism and procrastination. In J. R. Ferrari, & J. L. Johnson (Eds.), *Procrastination and task avoidance: theory, research, and treatment. The Plenum series in social/clinical psychology* (pp. 113–136). New York: Plenum Press.
- Freeston, M. H., Ladouceur, R., Gagnon, F., Thibodeau, N., Rhe'aume, J., Letarte, H., & Bujold, A. (1997). Cognitive-behavioral treatment of obsessive thoughts: a controlled study. *Journal of Consulting and Clinical Psychology*, 65, 405–413.
- Frost, R. O., & Steketee, G. (1997). Perfectionism in obsessive compulsive disorder patients. *Behaviour Research and Therapy*, 35, 291–296.
- Frost, R. O., Marten, P., Lahart, C. M., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, 14, 449–468.
- Frost, R. O., Lahart, C. M., & Rosenblate, R. (1991). The development of perfectionism: a study of daughters and their parents. *Cognitive Therapy and Research*, 15, 469–489.
- Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences*, 14, 119–126.
- Frost, R. O., Trepanier, K. L., Brown, E. J., & Heimberg, R. G. (1997). Self-monitoring of mistakes among subjects high and low in perfectionistic concern over mistakes. *Cognitive Therapy and Research*, 27, 209–222.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders*, 2, 15–34.
- Greenberger, D., & Padesky, C. A. (1995). *Mind over mood: a cognitive therapy treatment manual for clients*. New York: Guilford Press.
- Halmi, K. A., Sunday, S. R., Strober, M., Kaplan, A., Woodside, D. B., Fichter, M., Treasure, J., Berrettini, W. H., & Kaye, W. H. (2000). Perfectionism in anorexia nervosa: variation by clinical subtype, obsessionality, and pathological eating behavior. *American Journal of Psychiatry*, 157, 1799–1805.
- Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology: a Journal of Human Behavior*, 15, 27–33.
- Hewitt, P. L., & Flett, G. L. (1991a). Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, 60, 456–470.
- Hewitt, P. L., & Flett, G. L. (1991b). Dimensions of perfectionism in unipolar depression. *Journal of Abnormal Psychology*, 100, 98–101.
- Hewitt, P. L., Flett, G. L., & Ediger, E. (1996). Perfectionism and depression: longitudinal assessment of a specific vulnerability hypothesis. *Journal of Abnormal Psychology*, 105, 276–280.
- Hollender, M. H. (1965). Perfectionism. *Comprehensive Psychiatry*, 6, 94–103.
- Hollender, M. H. (1978). Perfectionism, a neglected personality trait. *Journal of Clinical Psychiatry*, 39, 384.
- Horney, K. (1950). *Neurosis and human growth*. New York: Norton.
- Joubert, C. E. (1990). Relationship among self-esteem, psychological reactance, and other personality variables. *Psychological Reports*, 66, 1147–1151.
- Juster, H. R., Heimberg, R. G., Frost, R. O., & Holt, C. S. (1996). Social phobia and perfectionism. *Personality and Individual Differences*, 21, 403–410.
- Kaye, W., Gendall, K., & Strober, M. (1998). Serotonin neuronal function and selective serotonin reuptake inhibitor treatment in anorexia and bulimia nervosa. *Biological Psychiatry*, 44, 825–838.
- Kaye, W. H., Lilienfeld, L. R., Berrettini, W. H., Strober, M., Devlin, B., Klump, K. L., Goldman, D., Bulik, C. M., Halmi, K. A., Fichter, M. M., Kaplan, A., Woodside, D. B., Treasure, J., Plotnicov, K. H., Pollice, C., Rao, R., & McConaha, C. W. (2000). A search for susceptibility loci for anorexia nervosa: methods and sample description. *Biological Psychiatry*, 47, 794–803.
- Lilienfeld, L. R., Kaye, W. H., Greeno, C. G., Merikangas, K. R., Plotnicov, K., Pollice, C., Rao, R., Strober, M.,

- Bulik, C. M., & Nagy, L. (1998). A controlled family study of anorexia nervosa and bulimia nervosa: Psychiatric disorders in first degree relatives and effects of proband comorbidity. *Archives of General Psychiatry*, 55, 603–610.
- Lilenfeld, L. R., Stein, D., Bulik, C. M., Strober, M., Plotnicov, K. H., Pollice, C., Rao, R., Nagy, L., & Kaye, W. H. (2000). Personality traits among currently eating disordered, recovered, and never ill first-degree female relatives of bulimic and control women. *Psychological Medicine*, 30, 1399–1410.
- Lilenfeld, L. R., Devlin, B., Bulik, C. M., Strober, M., Berrettini, W. H., Bacanu, S., Fichter, M. M., Goldman, D., Halmi, K. A., Kaplan, A., Woodside, D. B., Treasure, J., & Kaye, W. H. (2002). Deriving behavioral phenotypes in an International Multicenter Study of Eating Disorders. *Psychological Medicine*, in press.
- Mitzman, S. F., Slade, P., & Dewey, M. E. (1994). Preliminary development of a questionnaire designed to measure neurotic perfectionism in the eating disorders. *Journal of Clinical Psychology*, 50, 516–522.
- Mussell, M. P., Mitchell, J. E., Crosby, R. D., Fulkerson, J. A., Hoberman, H. M., & Romano, J. L. (2000). Commitment to treatment goals in prediction of group cognitive-behavioral therapy treatment outcome for women with bulimia nervosa. *Journal of Consulting and Clinical Psychology*, 68, 432–437.
- Obsessive Compulsive Cognitions Working Group (1997). Cognitive assessment of obsessive compulsive disorder. *Behaviour Research and Therapy*, 35, 667–681.
- Pacht, A. R. (1984). Reflections on perfection. *American Psychologist*, 39, 386–390.
- Rachman, S., Gruter-Andrew, J., & Shafran, R. (2000). Post-event processing in social anxiety. *Behaviour Research and Therapy*, 38, 611–617.
- Rhéaume, J., Freeston, M. H., & Ladouceur, R. (1995). Functional and dysfunctional perfectionism. Construct validity of a new instrument. Paper presented at the First annual World Congress of Behavioral and Cognitive Therapy, Copenhagen.
- Rhéaume, J., Freeston, M. H., Ladouceur, R., Boucard, C., Gallant, L., Talbot, F., & Vallières, A. (2000). Functional and dysfunctional perfectionists: are they different on compulsive-like behaviors? *Behaviour Research and Therapy*, 38, 119–129.
- Saboonchi, F., & Lundh, L. (1997). Perfectionism, self-consciousness and anxiety. *Personality and Individual Differences*, 22, 921–928.
- Saboonchi, F., Lundh, L., & Ost, L. (1999). Perfectionism and self-consciousness in social phobia and panic disorder with agoraphobia. *Behaviour Research and Therapy*, 37, 799–808.
- Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: a review of research and treatment. *Clinical Psychology Review*, 21, 879–905.
- Slade, P. D. (1982). Towards a functional analysis of anorexia nervosa and bulimia nervosa. *British Journal of Clinical Psychology*, 21 (3), 167–179.
- Slade, P. D., & Owens, R. G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavioural Modification*, 22, 372–390.
- Srinivasagam, N. M., Kaye, W. H., Plotnicov, K. H., Greeno, C., Welzin, T. E., & Rao, R. (1995). Persistent perfectionism, symmetry, and exactness after long-term recovery from anorexia nervosa. *American Journal of Psychiatry*, 152, 1630–1634.
- Szabo, C. P., & Terre-Blanche, M. J. (1997). Perfectionism in anorexia nervosa. *American Journal of Psychiatry*, 154, 132.
- Terry-Short, L. A., Owens, G. R., Slade, P. D., & Dewey, M. E. (1995). Positive and negative perfectionism. *Personality and Individual Differences*, 18, 663–668.
- Tuschl, R. J. (1990). From dietary restraint to binge eating: some theoretical considerations. *Appetite*, 14, 111–112.
- Vieth, A. Z., & Trull, T. J. (1999). Family patterns of perfectionism: an examination of college students and their parents. *Journal of Personality Assessment*, 72, 49–67.
- Vitousek, K. M. (1996). The current status of cognitive-behavioral models of anorexia nervosa and bulimia nervosa. In P. M. Salkovskis (Ed.), *Frontiers of cognitive therapy*. New York: The Guilford Press.
- Vitousek, K., & Manke, F. (1994). Personality variables and disorders in anorexia nervosa and bulimia nervosa. *Journal of Abnormal Psychology*, 103, 137–147.
- Ward, T., Hudson, S. M., & Bulik, C. M. (1993). The abstinence violation effect in bulimia nervosa. *Addictive Behaviors*, 18, 671–680.
- Weissman, A.N. & Beck, A.T. (1978). *Development and validation of the dysfunctional attitude scale: a preliminary*

*investigation*. Paper presented at the annual meeting of the American educational research association, Toronto, Canada.

- Wyatt, R., & Gilbert, P. (1998). Dimensions of perfectionism: a study exploring their relationship with perceived social rank and status. *Personality and Individual Differences*, 24, 71–79.
- Zuroff, D. C., Blatt, S. J., Sotsky, S. M., Krupnick, J. L., Martin, D. J., Sanislow, C. A., & Simmens, S. (2000). Relation of therapeutic alliance and perfectionism to outcome in brief outpatient treatment of depression. *Journal of Consulting and Clinical Psychology*, 68, 114–124.