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Research report

Is there a perfectionist in each of us? An experimental study on perfectionism and eating disorder symptoms

Liesbet Boone *[,1], Bart Soenens, Maarten Vansteenkiste, Caroline Braet

Faculty of Psychology, Department of Developmental, Social, and Personality Psychology, Ghent University, Henri Dunantlaan, 2 B-9000 Ghent, Belgium

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ABSTRACT

Previous studies have shown consistent associations between perfectionism and eating disorder (ED) symptoms. However, to date, only one study (Shafran et al., 2006) used an experimental design to examine in a non-clinical sample the causal relationship between perfectionism and ED symptoms. The current experimental study aimed to build on that study by examining the role of trait perfectionism in the effects of an experimental induction of perfectionism and by adopting a multidimensional approach to perfectionism. University students (N = 100; M age = 20.6 years; SD = 2.24) were randomly assigned to one of three experimental conditions, that is, a high Personal Standards condition, a condition combining Personal Standards perfectionism and Evaluative Concerns perfectionism, and a non-perfectionist condition. Compared to the non-perfectionist condition, participants in the two perfectionist conditions reported higher levels of state perfectionism during the next 24 h and this effect occurred irrespective of trait perfectionism levels. Further, participants in the perfectionist conditions, compared to those in the non-perfectionist condition, reported significantly higher levels of restraint and binging during the 24 h after manipulation. Together, the results suggest that perfectionism can be induced in people irrespective of their levels of trait perfectionism and that perfectionism represents a causal risk factor for ED pathology.

Introduction

Recent research suggests that perfectionism is involved in the development, course, and maintenance of eating disorders (Egan, Wade, & Shafran, 2011; Fairburn, Cooper, & Shafran, 2003; Stice, 2002). However, debate remains about whether perfectionism is a causal risk factor for eating disorder symptoms or whether it represents a concomitant or even consequence of eating disorder pathology (e.g., Bardone-Cone et al., 2007; Shafran & Mansell, 2001). The current study aimed to contribute to this debate by relying on an experimental design to examine whether the experimental activation of perfectionism produces an increase in eating disorder symptoms, thereby adopting a multidimensional approach to perfectionism. Additionally, by measuring participants' dispositional levels of perfectionism prior to exposing them to an experimental induction of perfectionism, we examined whether state perfectionism could be activated in all participants, independent of their initial disposition towards perfectionism.

Multidimensionality of perfectionism

In current research, perfectionism is typically considered as a multidimensional construct (Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Stoeber & Otto, 2006). This multidimensional conceptualization harkens back to the distinction of Hamachek (1978) between 'normal' and 'neurotic' perfectionism. He argued that perfectionism does not necessarily need to be maladaptive, but may also involve positive striving tendencies that might be relatively less harmful or even adaptive. Normal perfectionists were described as people who set high but attainable standards for themselves and who can derive a sense of pleasure from their attempts to pursue these standards, whereas neurotic perfectionists set unattainable standards and would never be satisfied with their performance (Hamachek, 1978). Consistent with Hamachek's reasoning, factor analytic studies using the most widely used multidimensional measures of perfectionism support a distinction between two components of perfectionism, that is: 'Personal Standards' (PS) perfectionism and 'Evaluative Concerns' (EC) perfectionism (Dunkley et al., 2000; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993).

EC perfectionism has been found to be associated positively with maladaptive outcomes (e.g., depression and negative affect), whereas PS perfectionism has been found to be unrelated to these

* Corresponding author.
E-mail address: Liesbet.Boone@UGent.be (L. Boone).
[1] *Note:* The first author is research assistant at the Fund for Scientific Research—Flanders (FWO).

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negative outcomes and sometimes even positively related to adaptive outcomes, such as positive affect (Frost et al., 1993; Stoeber & Otto, 2006). The question whether PS perfectionism is also harmless or even adaptive in the context of ED pathology has been a topic of controversy (Bardone-Cone et al., 2007). So far, findings are inconsistent: although EC perfectionism has been found to relate systematically to ED symptoms, associations between PS perfectionism and ED symptoms are less straightforward (Bardone-Cone, 2007; Bulik et al., 2003). For instance, several studies indicated that levels of both PS and EC perfectionism were higher in ED patients compared to healthy controls or other psychiatric groups (Bastiani, Rao, Weltzin, & Kaye, 1995). This type of findings raises questions concerning the adaptive nature of PS perfectionism. Other studies, however, found that only EC perfectionism was related to ED symptoms. Bulik et al. (2003), for instance, reported that EC (but not PS) perfectionism was associated with elevated odds ratios for the presence of eating disorders, compared to other psychiatric illnesses. In line with this, Soenens et al. (2008) found that, although eating disorder patients had higher scores on both perfectionism components compared to normal controls, these elevated scores of PS perfectionism disappeared when the variance shared with EC perfectionism was controlled for. Because research on the relevance of the distinction between PS and EC perfectionism in the context of ED symptoms has yielded inconclusive findings, it was deemed important to adopt this distinction in the current experimental study.

Research on the predictive and causal role of perfectionism in eating disorder symptoms

Evidently, cross-sectional studies on the relation between perfectionism and ED symptoms do not allow one to draw conclusions about perfectionism as a risk factor for EDs (e.g., Bardone-Cone, 2007). To overcome this limitation, longitudinal studies have been conducted to determine whether perfectionism is related to increases in ED symptoms across time (e.g., Bardone-Cone et al., 2007). However, the scarcely available longitudinal studies did not produce clear-cut findings. Whereas some studies found perfectionism to prospectively predict ED symptoms (e.g., Boone, Soenens, & Braet, 2011; Tyrka, Waldron, Graber, & Brooks-Gunn, 2002), others could not replicate such findings (e.g., Leon, Fulkerson, Perry, Keel, & Klump, 1999). Although methodologically superior to cross-sectional studies, longitudinal effects still fall short of demonstrating causality because observed longitudinal effects of perfectionism might be spurious, that is, driven by third variables. Hence, to examine the causal status of perfectionism in ED, there is a need to expand research methods, such as the use of experimental research.

Recently, experimental intervention studies have shown that the treatment of perfectionism through CBT resulted in a reduction of perfectionism and ED symptoms (e.g., Egan et al., 2011; Steele & Wade, 2008). Although these studies showed that an intervention focused on reducing perfectionism resulted in decreased levels of perfectionism and ED symptoms, they did not provide insight into dynamics involved in the causal association between perfectionism and ED symptoms in the general population. Therefore, in this study, it was deemed important to examine the effects of experimentally activated perfectionism on ED symptoms in non-clinical individuals.

To the best of our knowledge, to date, only one experimental study on perfectionism and eating disorder attitudes and behaviors has been conducted in a non-clinical sample (Shafran, Lee, Payne, & Fairburn, 2006). Shafran et al. (2006) randomly placed adolescents in either a high standards (i.e., perfectionist) or a low standards (i.e., non-perfectionist) group. High standards were manipulated by asking participants to set high Personal Standards and to pursue perfection during 24 h in a self-defined life domain (e.g., work or studies). In the low standards condition, participants were asked to function to the minimal possible standards. The activation of high personal, relative to minimal, standards caused participants (a) to eat less high-calorie foods, (b) to make more attempts to restrict food, and (c) to experience more regret after eating during the day.

Shafran et al.'s (2006) finding that perfectionism activated in the course of one day is related to ED symptoms experienced that day is consistent with a recent diary study in which it was shown that day-to-day fluctuations in perfectionism covary with day-to-day fluctuations in ED symptoms (Boone et al., 2012). One may wonder why (i.e., through which intervening mechanisms) perfectionism experienced one day would relate to ED symptoms within the day. A number of intervening mechanisms have been identified to explain why trait perfectionism is related to ED symptomatology, such as maladaptive cognitive schema's (Boone, Braet, Vandereycken, & Claes, 2012; Shafran, Cooper, & Fairburn, 2002), pressure to be thin and thin-ideal internalization (Boone et al., 2011). Because these mechanisms develop across a relatively long period of time, they are unlikely to be responsible for the association between daily perfectionism and ED symptoms. Herein, we argue that other mechanisms may be responsible for associations between daily perfectionism and ED symptoms, in particular processes related to coping and emotion regulation. It has been shown, for instance, that perfectionism is related to avoidant coping within the day (Stoeber & Janssen, 2011). Avoidant coping, in turn, has been shown to be systematically related to ED symptoms and binge eating in particular (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010). Similarly, restricted eating could be considered a compensatory and derivative way of coping with frustration and feelings of failure on days when one is highly perfectionistic (Verstuyf, Patrick, Vansteenkiste, & Teixeira, 2012).

The present study

This study builds on the experimental study of Shafran et al. (2006) in three ways, that is, (a) by adding, consistent with the multidimensional perspective on perfectionism, an experimental condition characterized by the activation of both PS and EC perfectionism, (b) by examining whether the experimental manipulation of perfectionism interacts with dispositional levels of perfectionism assessed prior to the experiment, and (c) by examining the effect of perfectionism on a broad set of eating disorder outcomes, including restrictive symptoms, binge eating pathology, and body dissatisfaction, which were assessed 24 h after the experimental induction.

These three novel features allowed us to examine three understudied yet important issues. First, next to the conditions involving high PS perfectionism and low PS perfectionism (which were included in the Shafran study), we included a third condition involving the combined activation of PS and EC perfectionism in which participants were asked to set high standards for themselves and to make sure they would not fail to attain them. By doing so, we could explicitly examine whether the activation of PS perfectionism by itself would elicit an equal degree of EC state perfectionism compared to the activation of both PS and EC. If this were the case, it would suggest that PS perfectionism might not be so adaptive after all.

Second, the inclusion of an assessment of trait (or dispositional) levels of perfectionism prior to the experimental manipulation allows one to examine potential interactions between trait perfectionism and an experimental manipulation in the prediction of state perfectionism and ED symptoms. Such interaction analyses help to shed light on the question how stable or trait-like versus malleable and state-like perfectionism is. If the present study