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Selective attention in perfectionism: Dissociating valence from perfectionism-relevance

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ABSTRACT

Background and objectives: Maladaptive perfectionism has been identified as a predisposing and perpetuating factor for a range of disorders, including eating, anxiety, and mood disorders. An influential model of perfectionism, put forward by Shafran, Cooper, and Fairburn (2002), proposes that high perfectionism reflects an attentional bias that operates to afford greater attention to negative information than to positive information, when this information is perfectionism-relevant. The present study is the first to experimentally test this hypothesis..

Method: The present study assessed the type of stimuli that high perfectionists (n = 31) preferentially attend to compared to low perfectionists (n = 25) within a non-clinical population. Using an attentional probe task, we compared high and low perfectionist attentional responding to stimulus words that differed in terms of their emotional valence (positive vs. negative) and perfectionism-relevance (perfectionism-relevant vs. −irrelevant).

Results: Analysis revealed that, unlike low perfectionists, high perfectionists displayed greater attentional preference to negative than to positive information, but only for perfectionism-relevant stimuli..

Limitations: The implications must be considered within the limitations of the present study. The present study did not assess clinical participants, as such conclusions cannot be made regarding attentional bias that characterize clinical disorders in which perfectionism is identified as a predisposing and perpetuating factor.

Conclusions: Theoretically, the attentional dot-probe task lends weight to the cognitive-behavioral model of clinical perfectionism, which proposed a biased attentional processing of negative perfectionism relevant stimuli within perfectionism. This conclusion was previously based on clinical impressions, whereas the present study used an objective performance measure. Clinically, therapists should take this attentional bias into account when planning treatments that involve targeting perfectionism..

1. Introduction

Clinical perfectionism has been defined as the pursuit of perfection and basing self-worth on achievement, despite adverse consequences (Shafran, Cooper, & Fairburn, 2002). This definition of perfectionism has been central to the development of cognitive-behavioral treatments (CBT) for perfectionism, which have been found to be effective in reducing perfectionism, anxiety and depression (for a review see Lloyd, Schmidt, Khondoker, & Tchanturia, 2015). Perfectionism has been identified as a predisposing and perpetuating factor for eating, anxiety, and mood disorders and is associated with poorer treatment outcomes for these disorders (Egan, Wade, & Shafran, 2011). Perfectionism has been proposed to be a transdiagnostic process that underpins numerous psychological disorders (Egan et al., 2011) and this transdiagnostic nature of perfectionism may contribute to the high rates of comorbidity among psychological disorders (Bieling, Summerfeldt, Israeli, & Antony, 2004; Egan, Wade, & Shafran, 2012).

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Consequently, targeting perfectionism may be an efficient way of treating multiple psychological disorders (Egan et al., 2011). This study aims to evaluate the hypothesis that selective attention, which is a type of attentional bias, is a maintaining mechanism of clinical perfectionism. A focus on changing unhelpful patterns of selective attention is already a component of cognitive behavior therapy (CBT) for perfectionism (e.g., Egan, Wade, Shafran, & Antony, 2014), yet little research has examined the role of selective attention in perfectionism. Examining the role of selective attention in perfectionism in an experimental study may be helpful in confirming the need to target selective attention in CBT for perfectionism. Furthermore, this may help determine if additional approaches that can change selective attention, such as attention bias modification (ABM), may be a useful adjunct to CBT for perfectionism in the future.

A cognitive-behavioral model of clinical perfectionism was first proposed by Shafran et al. (2002), and later updated by Shafran, Egan, and Wade (2010). Shafran et al. (2002) postulated that individuals high in clinical perfectionism set excessively high standards for themselves, and base their self-worth on meeting these standards. Shafran et al. (2002) put forward the hypothesis, based on clinical observation, that perfectionism that is clinically relevant is maintained in part by a particular form of attentional bias. Attentional bias can be broadly defined as a systematic tendency to preferentially allocate attention towards specific types of information (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & Van, 2007). Information can be considered perfectionism-relevant when it concerns the evaluation of performance, and perfectionism-irrelevant when it bears no relationship to performance standards. Such information can be further subdivided according to whether it is negative in emotional tone or positive in emotional tone. Thus, negative perfectionism-relevant information would concern failure and criticism, whereas positive perfectionism-relevant information would concern success and praise. Shafran et al. (2002) proposed that people with high levels of clinical perfectionism, but not those with low levels of clinical perfectionism, allocate greater attention to negative perfectionism-relevant information than to positive perfectionism-relevant information. Shafran et al.'s proposition is consistent with early clinical impressions of perfectionism, such as that put forward by Hollander (1965), who stated that the perfectionist "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." (p. 95). According to Shafran and colleagues, because this attentional bias increases the processing of negative perfectionism-relevant information, relative to positive perfectionism-relevant, it gives rise to cognitive distortions such as overgeneralizing failure, and discounting of success (Egan et al., 2011; Shafran et al., 2010).

Shafran et al.'s (2002) proposal has guided the development of therapeutic interventions for perfectionism. CBT for perfectionism includes treatment components that are specifically designed to alter patterns of biased attentional responding to negative perfectionism-relevant information (Egan, Wade, et al., 2014). To date, however, no study has directly tested the key prediction generated by Shafran et al.'s theoretical position that individuals high in clinical perfectionism, but not those low in perfectionism, will display an attentional bias towards negative perfectionism-relevant information compared to positive perfectionism-relevant information. Importantly, if the prediction regarding selective attention were to be confirmed, then this would support the therapeutic value of including such components in CBT for perfectionism. Alternatively, if this prediction were not to be confirmed, then this would suggest that future research would be useful to determine the most effective components of CBT for perfectionism through examining alternative mechanisms of change.

Only one study to date has compared attentional bias in people who score high and low in perfectionism, and while the results of this study are encouraging, interpretation of its findings is constrained by limitations associated with the adopted methodology. Specifically, in this study, Kobori and Tanno (2012) screened 243 undergraduate students on the self-oriented perfectionism subscale of the Hewitt and Flett Multidimensional Perfectionism scale (HMPS; Hewitt & Flett, 1991). They compared the performance of those who scored in the top 25% (high perfectionism) and who scored those in the bottom 25% (low perfectionism) on an emotional Stroop task that required them to color name negative perfectionism-relevant words (e.g., failure, flaw, imperfection) and neutral words unrelated to perfectionism (e.g., air, temperature, printer). Kobori and Tanno assumed that when participants' attention was captured by word content, then their color naming of these words would be slowed. The high perfectionism group took significantly longer than the low perfectionism group to color name the negative perfectionism-relevant words, whereas the groups did not differ in their color naming latencies for the neutral perfectionism-irrelevant words. Although Kobori and Tanno's findings are consistent with the possibility that people high in perfectionism may attend disproportionately to negative perfectionism-relevant information, two limitations prevent the study from adequately testing Shafran et al.'s (2002) hypothesis. The first limitation concerns Kobori and Tanno's use of the emotional Stroop task to assess attentional bias, while the second limitation concerns the nature of the stimulus words used in their study. Each limitation will be considered in turn.

There has been compelling criticism of the assumption that slowing to color name particular words on the emotional Stroop task permits the conclusion that attention is being drawn to the content of such words (Algom, Chajut, & Lev, 2004; Bar-Haim et al., 2007; Macleod, Mathews, & Tata, 1986). As critics have pointed out, some participants may display general response slowing in the presence of certain information, reflecting behavioral freezing, without this involving greater attention to the content of that information. Moreover, critics also have noted that, even if an attentional bias is implicated in slowing to color name certain words, this could just as readily involve attentional avoidance of these particular colored word as attentional vigilance to the semantic content of these words (Lavy & van den Hout, 1994). Such concerns have led researchers to advocate the use of attentional assessment tasks that more clearly index the distribution of selective attention between the differing information of interest. The most widely used approach for achieving this is the attentional probe task, in which pairs of words, with their members differing on the dimension of interest, are briefly exposed on a computer screen, and participants must discriminate small probe stimuli that then appear in the locus where either word was shown. Degree of speeding to discriminate probes that appear in the locus of one category of words, relative to those that appear in the locus of the other category of words, indicates that attention was preferentially allocated to the former type of words compared to the latter (Grafton & Macleod, 2014; Grafton, Watkins, & MacLeod, 2012; Macleod et al., 1986). The use of this attentional probe methodology would permit more rigorous testing of the hypothesis that high perfectionism, unlike low perfectionism, is characterized by greater selective attention to failure related than success related information. This will be the attentional assessment approach adopted in the present study.

The second limitation of Kobori and Tanno (2012) study is that it compared only negative perfectionism-relevant words and neutral perfectionism-irrelevant words. The restriction of consideration to these two categories of stimulus words precludes conclusions concerning whether high perfectionism, but not low perfectionism,