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Perfectionism Cognitions are Multidimensional:

A Reply to Flett and Hewitt (2014)

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Abstract

We reply to Flett and Hewitt's (2014) commentary on our findings (Stoeber, Kobori, & Brown, 2014) focusing on the multidimensionality of the Perfectionism Cognitions Inventory (PCI) and the question of whether the Multidimensional Perfectionism Cognitions Inventory (MPCI) represents an alternative to the PCI. In addition, we reiterate the importance of considering suppression effects when examining different dimensions of perfectionism and, in concluding, invite researchers to join forces to further advance the assessment of multidimensional perfectionism cognitions.

Keywords: perfectionistic strivings; perfectionistic concerns; automatic thoughts; dysfunctional attitudes; positive and negative affect; depressive symptoms; suppression

Perfectionism Cognitions are Multidimensional: A Reply to Flett and Hewitt (2014)

We are grateful to Flett and Hewitt taking the time to provide a commentary, and a different perspective, on the findings of our study investigating the multidimensionality of perfectionism cognitions (Stoeber, Kobori, & Brown, 2014). Whereas the commentary raises many important points, space restrictions prevented us from responding to each point. Consequently, our reply focused on points where we considered it important to clarify where we agreed with Flett and Hewitt's commentary, and where we disagreed.

The Multidimensionality of the Perfectionism Cognitions Inventory (PCI)

Regarding Flett and Hewitt's comments on the multidimensionality of the PCI (Flett, Hewitt, Blankstein, & Gray, 1998), we agree that the multidimensionality we found needs to be replicated in clinical samples. However, we would like to point out that our reanalyses of the principal component analyses reported in studies that Flett and colleagues conducted with other nonclinical samples (students, adolescents) all point in the direction that the PCI has at least two factors (see Stoeber et al., 2014, for details). Consequently, we are confident that the PCI is multidimensional in nonclinical samples. Moreover, based on previous findings that measures of trait perfectionism showed the same multidimensionality in clinical and nonclinical samples (e.g., Cox, Enns, & Clara, 2002), we expect the PCI to be multidimensional also in clinical samples.

Responding to Flett and Hewitt's suggestion that there is a subjective aspect to *conducting* factor analyses, we would like to point out that—when it comes to determining the number of factors—there are established methods that reduce subjectivity. In exploratory factor analyses, for example, there are objective tests (e.g., parallel analysis, Velicer's MAP test) helping researchers to decide how many factors to retain, and using these tests we found the PCI to be three-factorial (Stoeber et al., 2014).

However, we agree that there is a subjective aspect to *interpreting* (and labelling) factors, and this likewise applies to the three PCI factors we found. Moreover, we agree that the factors showed substantial loadings also from items whose contents were not a good reflection of the labels we gave the factors. This goes in particular for the factor labelled "perfectionistic strivings." Whereas the PCI items with the highest loadings on this factor ("My goals are very high," "I certainly have high standards") reflect striving for perfection, we agree with Flett and Hewitt that other items reflect demanding perfection from oneself and one's work (indicated by "must," "should," "has to"). These items may capture the importance of being perfect, rather than striving for perfection (cf. Stoeber & Childs, 2010). Moreover, we agree that—unlike the Multidimensional Perfectionism Cognitions Inventory (MPCI)—the PCI was not intended as a multidimensional measure and therefore it is not surprising that we found a multifactorial structure with overlapping factors.

Nevertheless, it is important to note that only when the PCI was conceptualized as multidimensional and when factor scores were used did the PCI predict positive affect. Moreover, when the factor scores were used instead of the total score, the PCI predicted significantly more variance in negative affect and depressive symptoms (see Stoeber et al., 2014, Table 3).

The MPCI as an Alternative to the PCI

Regarding Flett and Hewitt's comments on the question whether the MPCI represents an alternative to the PCI, we agree that the two measures are not equivalent or redundant. Instead, they should be regarded as complementary, as was demonstrated in the multiple regressions of our study comparing PCI and MPCI scores (see ibid., Table 3). Furthermore, we agree that—differently from the PCI—the MPCI also captures perfectionism cognitions that may reflect positive beliefs about perfectionism (cf. Stoeber, Hoyle, & Last, 2013). However, we disagree that the MPCI does not capture perfectionism cognitions reflecting "ruminative thoughts about

the self needing to be perfect and thinking about not being perfect" because the MPCI Pursuit of Perfection subscale contains items pertaining to this aspect of perfectionism cognitions (e.g., "I must be perfect at any cost," "I can't be satisfied unless I make it perfect").

Furthermore, whereas we agree that some MPCI items are worded in a way resembling dysfunctional attitudes, we would like to point out that some PCI items are worded in a similar way (e.g., "It would be great if everything in my life were perfect," "I can always do better, even if things are almost perfect"). Moreover, we think that dysfunctional attitudes and automatic thoughts can have the same contents, but differ with respect to how stable (dysfunctional attitudes) or fluent (automatic thoughts) they are. Moreover, note that the MPCI uses the same instruction, time frame, and response format as the PCI—telling respondents that the items describe thoughts about perfection that sometimes pop into people's heads and that they should indicate how frequently they had these thoughts in the past week—and the MPCI has shown substantial correlations with measures of automatic thoughts similar to those shown by the PCI (see Stoeber, Kobori, & Tanno, 2010, for details). Therefore, we are confident that the MPCI, like the PCI, captures perfectionism cognitions rather than dysfunctional attitudes.

In contrast, we fully agree that both PCI and MPCI have clinical utility at the individual case level in the way that Flett and Hewitt suggested in their commentary. In this, we would expect "maladaptive perfectionists" to show higher frequencies on the items of PCI Factor 1 (perfectionistic concerns) and PCI Factor 3 (perfectionistic demands) as well as MPCI Concern over Mistakes and, to a lesser degree, MPCI Pursuit of Perfection. In contrast, we would expect the "adaptive perfectionists" of Lo and Abbott's (2013) study that Flett and Hewitt mention to show higher frequencies on the items of PCI Factor 2 (perfectionistic strivings) and MPCI Personal Standards (cf. Stoeber & Otto, 2006).

Mutual Suppression

Although the focus of our reply was on Flett and Hewitt's commentary, we would like to add a short comment on the topic of "mutual suppression," which was central to our article (Stoeber et al., 2014) but was only briefly referred to in the commentary. Recent developments in mediation analyses have pointed out that theories including suppression effects are more complete than theories not including suppression effects (Rucker, Preacher, Tormala, & Petty, 2011). We would like to make the same point for theories of trait perfectionism and perfectionism cognitions. Only if we take suppression effects into account can we fully understand what perfectionism is and what it does (cf. Gotwals, Stoeber, Dunn, & Stoll, 2012; Hill, Huelsman, & Araujo, 2010; Stoeber et al., 2014). To do so, however, we need to acknowledge that perfectionism is best conceptualized as multidimensional comprising adaptive and maladaptive aspects (Enns & Cox, 2002); and we need multidimensional measures of perfectionism—including multidimensional measures of perfectionism cognitions—that allow us to differentiate between these various aspects.

Future Research

Finally, and in concluding, we agree with Flett and Hewitt that the ideal multidimensional measure of perfectionism cognitions still remains to be developed. To this aim, we would invite Flett, Hewitt, and other colleagues interested in perfectionism cognitions to join forces in future efforts to develop such a measure.

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