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Affect Intensity Contributes to Perfectionistic Self-Presentation in Adolescents

Beyond Perfectionism

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#### **Abstract**

Perfectionistic self-presentation in adolescents is associated with psychological maladjustment and distress. Yet, no study so far has investigated what personality characteristics contribute to perfectionistic self-presentation in adolescence. Using a cross-sectional correlational design with 119 adolescents aged 11-16 years, this study investigated how perfectionism (self-oriented and socially prescribed perfectionism) and affect intensity (positive affectivity, negative intensity, and negative reactivity) predicted individual differences in three modes of perfectionistic selfpresentation: perfectionistic self-promotion, nondisplay of imperfection, and nondisclosure of imperfection. Results showed a unique prediction pattern for all three modes of perfectionistic self-presentation. Moreover, affect intensity contributed to perfectionistic self-presentation beyond perfectionism in two of the three modes. Perfectionistic self-promotion was predicted by high self-oriented perfectionism, high socially prescribed perfectionism, high positive affectivity, and low negative reactivity. In contrast, nondisplay of imperfection was predicted by high selforiented perfectionism, high negative reactivity, and low positive affectivity. Nondisclosure of perfectionism was predicted by high socially prescribed perfectionism only. The findings suggest that affect intensity is a personality characteristic contributing to perfectionistic self-presentation in adolescence beyond perfectionism.

*Keywords:* perfectionism; perfectionistic self-presentation; adolescence; positive affectivity; negative affectivity

#### Introduction

Perfectionism is a personality disposition characterized by striving for flawlessness and setting exceedingly high standards of performance accompanied by overly critical evaluations of one's behavior and fear of negative evaluations by others (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). Moreover, perfectionism is a disposition that most researchers regard as maladaptive because it is closely associated with psychological maladjustment and distress (e.g., Chang, Sanna, Chang, & Bodem, 2008; Dunkley & Blankstein, 2000; Flett, Madorsky, Hewitt, & Heisel, 2002; O'Connor & O'Connor, 2003; Rice, Richardson, & Clark, 2012; Sherry, Law, Hewitt, Flett, & Besser, 2008).1

## **Perfectionistic Self-Presentation**

One reason why perfectionism is mostly maladaptive and associated with psychological maladjustment and distress is perfectionistic self-presentation (Hewitt et al., 2003; see also Hewitt, Habke, Lee-Baggley, Sherry, & Flett, 2008; Mackinnon & Sherry, 2012; Sherry, Hewitt, Flett, Lee-Baggley, & Hall, 2007). Following the self-presentation literature differentiating a promotion focus from a prevention focus (Higgins, 1998), perfectionistic self-presentation has two central concerns: to promote the impression that one is perfect, and to prevent the impression that one is not. To capture these concerns, Hewitt et al. (2003) developed a measure differentiating three modes of perfectionistic self-presentation: perfectionistic self-promotion, nondisplay of imperfection, and nondisclosure of imperfection. Perfectionistic self-promotion is

<sup>&</sup>lt;sup>1</sup>For a more positive view of perfectionism and a review of studies suggesting that perfectionism may have positive effects on performance, the interested reader is referred to Stoeber and Otto (2006) and Stoeber (2012).

promotion-focused and is driven by the need to appear perfect by impressing others, and to be viewed as perfect via displays of faultlessness and a flawless image. In contrast, nondisplay of imperfection and nondisclosure of imperfection are prevention-focused. Nondisplay of imperfection is driven by the need to avoid appearing as imperfect. It includes the avoidance of situations where one's behavior is under scrutiny if this is likely to highlight a personal shortcoming, mistake, or flaw. In comparison, nondisclosure of imperfection is driven by a need to avoid verbally expressing or admitting to concerns, mistakes, and perceived imperfections for fear of being negatively evaluated (Hewitt et al., 2003; see also Hewitt et al., 2008).

All three modes of perfectionistic self-presentation have shown positive correlations with indicators of psychological maladjustment and distress such as negative affect, selfhandicapping, social anxiety, depression, and low self-esteem (e.g., Flett, Galfi-Pechenkov, Molnar, Hewitt, & Goldstein, 2012; Hewitt et al., 2003; Mushquash & Sherry, 2012; Nepon, Flett, Hewitt, & Molnar, 2011). In addition, Hewitt et al. (2003) found that—although all three modes of perfectionistic self-presentation showed substantial positive correlations with perfectionism—they explained variance in psychological maladjustment and distress beyond variance explained by perfectionism. Thus, perfectionistic self-presentation makes an important contribution to the perfectionism literature in helping to understand why many perfectionists are distressed.

#### Perfectionistic Self-Presentation in Adolescence

Adolescence is a critical time in the developmental of perfectionism (Flett, Hewitt, Oliver, & Macdonald, 2002; Stoeber & Childs, 2011). Moreover, adolescence should also be a critical time in the development of perfectionistic self-presentation because adolescents' high levels of self-consciousness and preoccupation with their public image should make perfectionistic self-presentation particularly pertinent to this age group (cf. Hewitt et al., 2011). Unfortunately, research on perfectionistic self-presentation so far has mainly focused on older adolescents and young adults (e.g., university students). Only few studies have investigated perfectionistic self-presentation in younger adolescents (e.g., Chen et al., 2012; Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2011). Mirroring the findings from studies with older adolescents and young adults, the studies found that perfectionistic self-presentation in younger adolescents showed positive correlations with indicators of psychological maladjustment and distress. Adolescents high in perfectionistic self-presentation reported higher levels of worry, anxiety, and depression compared to adolescents low in perfectionistic self-presentation (Hewitt et al., 2011). Moreover, they reported higher levels of fear of negative evaluation and more attachment problems (less secure and more preoccupied, fearful, and dismissing attachment) as well as higher levels of social avoidance, disconnectedness, and distress (Chen et al., 2012; Flett, Coulter, & Hewitt, 2012). What is more, like in older adolescence and young adults, perfectionistic self-presentation explained variance in psychological maladjustment and distress beyond perfectionism (Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2011).

## Predictors of Perfectionistic Self-Presentation in Adolescence

**Perfectionism.** Whereas these findings corroborate previous findings with older adolescents and young adults indicating that perfectionistic self-presentation predicts individual differences in psychological maladjustment and distress beyond perfectionism, only few studies so far have investigated the question of what psychological characteristics predict individual differences in perfectionistic self-presentation. Moreover, all studies investigating this question have focused on perfectionism. There are two reasons for this focus. Conceptually, perfectionism

should predict perfectionistic self-presentation because displaying perfection (and hiding imperfection) are of key importance to all perfectionists, whether they strive for flawlessness and set exceedingly high standards of performance or whether they try to avoid overly critical evaluations of their behavior because of fear of others' negative evaluations (Frost et al., 1990; Hewitt & Flett, 1991). Empirically, perfectionism has shown consistent positive correlations with perfectionistic self-presentation (e.g., Hewitt et al., 2003; Hewitt et al., 2011; Mackkinnon & Sherry, 2012; Mushquash & Sherry, 2012). What is more, diary studies have shown that perfectionism predicted increases in perfectionistic self-presentation over time (Mackkinnon & Sherry, 2012; Mushquash & Sherry, 2012). What is still unclear, however, is whether different forms of perfectionism predict different modes of perfectionistic self-presentation in adolescence.

Following Hewitt and Flett's (1991) model of perfectionism, two main forms of perfectionism need to be differentiated in early and middle adolescence: self-oriented perfectionism and socially prescribed perfectionism (Flett, Hewitt, Boucher, Davidson, & Munro, 2000; see also Flett, Druckman, Hewitt, & Wekerle, 2012; Flett, Hewitt, & Cheng, 2008; Hewitt et al., 2002).<sup>2</sup> Self-oriented perfectionism is an intrinsically motivated form of perfectionism characterized by personal expectations of perfection. In contrast, socially prescribed perfectionism is an extrinsically motivated form of perfectionism characterized by beliefs that others expect perfection from oneself (Hewitt & Flett, 1991, 2004; see also Stoeber, Feast, & Hayward, 2009). Studies investigating the relationships between perfectionism and perfectionistic self-presentation in older adolescents and young adults found that self-oriented and socially prescribed perfectionism showed positive correlations with all three modes of perfectionistic self-presentation (e.g., Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2003; Hewitt et al., 2008). Studies on perfectionistic self-presentation in younger adolescents however found that perfectionistic self-promotion and nondisplay of imperfection showed larger correlations with self-oriented perfectionism than with socially prescribed perfectionism whereas nondisclosure of imperfection showed larger correlations with socially prescribed perfectionism than with self-oriented perfectionism (Chen et al., 2012; Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2011). Consequently, it could be expected that self-oriented and socially prescribed perfectionism would show different relationships with the three modes of self-presentation when used to predict individual differences in perfectionistic self-presentation in adolescents.

**Affect intensity.** But what characteristics other than perfectionism could predict individual differences in perfectionistic self-presentation in adolescents? One potential candidate is affect intensity. Adolescence is a developmental period when individuals' affect may be very "temperamental," showing significant changes from week to week (Steinberg, 2011). Moreover, and more importantly, adolescents' temperament and emotional response tendencies (e.g., affect intensity and reactivity) not only represent factors that predict "storm and stress" in adolescence (Hollenstein & Lougheed, 2013) but may also contribute to perfectionistic self-presentation in adolescence. The reason is that the findings from cross-sectional studies showing that perfectionistic self-presentation in adolescents are associated with higher levels of worry, anxiety, and depression (e.g., Chen et al., 2012; Flett et al., 2012; Hewitt et al., 2011) could also be interpreted as suggesting that negative affectivity contributes to how adolescents self-present:

<sup>&</sup>lt;sup>2</sup>In research with older adolescents (e.g., undergraduate students) and adults, a third form is differentiated, other-oriented perfectionism, which is characterized by having perfectionistic expectations of others (Flett & Hewitt, 1991; see also Stoeber, in press).

Adolescents typically experiencing more (or more intense) negative affect may present themselves differently from adolescents experiencing less (or less intense) negative affect. Consequently, adolescents' affect intensity—that is, how adolescents typically experience positive and negative affect—may be a further characteristic predicting individual differences in perfectionistic self-presentation in adolescence.

Affect intensity reflects the magnitude of emotional responsiveness to emotion-provoking stimuli (i.e., how strongly people feel positive and negative affect) and has long been recognized as an important individual difference characteristic that predicts people's reactions to daily life events (Larsen & Diener, 1987; Larsen, Diener, & Emmons, 1986). Whereas affect intensity was originally conceptualized as a unitary construct (Larsen et al., 1986), Bryant, Yarnold, and Grimm (1996) suggested that it comprised four aspects: positive intensity, positive reactivity, negative intensity, and negative reactivity. However, when conducting factor analyses on affect intensity measured with the Affect Intensity Measure (Larsen et al., 1986), Bryant and colleagues found that participants did not differentiate between positive intensity and positive reactivity. Consequently, they suggested combining the two positive aspects to positive affectivity, resulting in a three-factor conceptualization of affect intensity which showed good factorial validity differentiating three aspects: positive affectivity, negative intensity, and negative reactivity.

## The Present Study

Against this background, the present study had two aims. First, the study aimed to investigate whether the two forms of perfectionism (self-oriented perfectionism, socially prescribed perfectionism) predicted individual differences in the three modes of perfectionistic self-presentation (perfectionistic self-promotion, nondisplay of imperfection, nondisclosure of imperfection). Second, it aimed to investigate whether the three aspects of affect intensity (positive affectivity, negative intensity, negative reactivity) would contribute to predict individual differences in perfectionistic self-presentation in adolescents beyond perfectionism. In this endeavor, of particular interest was whether the two forms of perfectionism and the three aspects of affect intensity—when simultaneously entered in multiple regressions—would show unique patterns of regression weights when predicting individual differences in each of the three modes of perfectionistic self-presentation.

Based on the findings that perfectionistic self-promotion and nondisplay of imperfection showed larger correlations with self-oriented perfectionism whereas nondisclosure of imperfection showed larger correlations with socially prescribed perfectionism (Chen et al., 2012; Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2011), we expected that self-oriented perfectionism would emerge as a positive predictor of perfectionistic self-promotion and nondisplay of imperfection whereas socially prescribed perfectionism would emerge as a positive predictor of nondisclosure of imperfection. Moreover, based on findings that positive affectivity is associated with a promotion focus whereas negative affectivity is associated with a prevention focus (e.g., Summerville & Roese, 2008), we expected that positive affectivity would emerge as a positive predictor of perfectionistic self-promotion whereas negative intensity and negative reactivity would emerge as positive predictors of nondisplay of imperfection and nondisclosure of imperfection.

#### Method

## **Participants and Procedure**

A sample of 119 adolescents (53 male, 66 female) was recruited from the 7th and 10th grade of a secondary school near the authors' university: 56 adolescents from 7th grade (26 male,

30 female; age = 11-12 years) and 63 adolescents from 10th grade (27 male, 36 female; age = 14-16 years). Asked about their ethnicity, 93% of adolescents indicated to be White (n = 111)which was representative of the local population. The remaining 7% indicated to be mixed race (n = 4), Asian (n = 1), or Black (n = 1) or provided no data (n = 2).

Data were collected by the second author in two sessions (one for the 7th graders, one for the 10th graders) during school hours. At both sessions, teachers were present to ensure orderly conduct, but were not involved in the data collection. Participants were told that the study investigated personal standards and emotions. Moreover, they were told that the study was interested in their personal responses and that there were no right or wrong answers. On completion, participants were debriefed verbally and received a written debriefing for their parents. The study followed the code of ethics and conduct of the British Psychological Society (2009) and was approved by the relevant ethics committee and the school's head.

## **Measures**

Perfectionistic self-presentation. To measure perfectionistic self-presentation, we used the 18-item Perfectionistic Self-Presentation Scale–Junior Form (PSPS–Jr; Hewitt et al., 2011) capturing perfectionistic self-promotion (8 items; e.g., "It is important to act perfectly around other people"), nondisplay of imperfection (6 items; "Mistakes are worse when others see me make them"), and nondisclosure of imperfection (4 items; "I should always keep my problems secret"). The PSPS-Jr has demonstrated good reliability and validity in previous studies except that nondisclosure of imperfection scores have occasionally shown Cronbach's alphas < .70 (e.g., Chen et al., 2012; Hewitt et al., 2011) most likely due to the scale's brevity comprising four items only (cf. Cronbach, 1951). Adolescents responded to all items on a scale from 1 (false – not at all true of me) to 5 (very true of me).

**Perfectionism.** To measure perfectionism, we used the 22-item Child–Adolescent Perfectionism Scale (CAPS; Flett et al., 2000) capturing self-oriented perfectionism (12 items; e.g., "I try to be perfect in every thing I do") and socially prescribed perfectionism (10 items; "Other people always expect me to be perfect"). The CAPS has demonstrated good reliability and validity in numerous studies (e.g., Flett et al., 2008; Hewitt et al., 2002). Participants responded to all items on a scale from 1 (false – not at all true of me) to 5 (very true of me).

**Affect intensity.** To measure affect intensity, we used the 27-item Affect Intensity and Reactivity Scale for Youth (AIR-Y; Jones, Leen-Feldner, Olatunji, Reardon, & Hawks, 2009) which follows Bryant et al.'s (1996) three-factorial conceptualization of affect intensity differentiating three aspects: positive affectivity (15 items; e.g., "When I feel happy it is a strong type of feeling"), negative intensity (6 items; "When I am nervous I get shaky all over"), and negative reactivity (6 items; "The sight of someone who is hurt badly affects me strongly"). The AIR-Y has demonstrated good reliability and validity in previous studies (e.g., Jones et al., 2009; Tsang, Wong, & Lo, 2012). Participants responded to all items on a scale from 1 (never) to 6 (always).

## **Preliminary Analyses**

First, we computed scale scores for each participant by averaging answers across items. Next, we effect-coded gender and grade for inclusion in our regression analyses (see Cohen, Cohen, West, & Aiken, 2003). Gender was coded +1 (female) and -1 (male), and grade was coded +1 (10th grade) and -1 (7th grade). Because multivariate outliers can severely distort the results of correlation and regression analyses, we inspected the scores for multivariate outliers including gender and grade. One adolescent (female, 10th grade) showed a Mahalanobis distance

larger than  $\chi^2(10) = 29.59$ , p < .001 indicating that she was a multivariate outlier (Tabachnick & Fidell, 2001) and was excluded from all further analyses. With this, our final sample comprised 118 adolescents. Finally, we inspected the scores' reliability by computing Cronbach's alphas. All scores showed alphas > .70 except nondisclosure of imperfection (see Table 1). Whereas questionable when used for individual assessment, scores with alphas < .70 are still useful for research purposes (Nunnally & Bernstein, 1994). Hence nondisclosure of imperfection was retained for further analyses.

#### Results

#### **Correlations**

First we computed bivariate correlations to examine the relationships between the variables (Table 1). In line with previous findings, self-oriented and socially prescribed perfectionism showed positive correlations with all three modes of perfectionistic selfpresentation: perfectionistic self-promotion, nondisplay of imperfection, and nondisclosure of imperfection. In addition, negative intensity and negative reactivity showed positive correlations with all three modes. In contrast, positive affectivity showed positive correlations only with perfectionistic self-promotion and nondisplay of imperfection, but not with nondisclosure of imperfection.

Regarding the correlations between perfectionism and affect intensity, self-oriented perfectionism showed positive correlations with positive affectivity, negative intensity, and negative reactivity whereas socially prescribed perfectionism only showed a positive correlation with negative intensity. Gender showed positive correlations with all variables, except socially prescribed perfectionism: Female adolescents reported higher levels of perfectionistic selfpresentation, self-oriented perfectionism, and affect intensity than male adolescents. In addition, grade showed a positive correlation with socially prescribed perfectionism: Adolescents in 10th grade reported higher socially prescribed perfectionism than adolescents in 7th grade. Consequently we controlled for gender and grade in all consecutive analyses.

## **Regression Analyses**

Next we computed hierarchical regression analyses (also known as sequential regression analyses; Cohen et al., 2003) to examine whether affect intensity explained variance in perfectionistic self-presentation beyond perfectionism. Because the three modes of perfectionistic self-presentation showed significant overlap (see the three modes' intercorrelations in Table 1), we computed two models for each mode of perfectionistic selfpresentation. In Model 1, we examined how perfectionism and affect intensity predicted each mode without controlling for the overlap with the other two modes. Model 1 comprised three steps. In Step 1, we entered gender and grade as control variables. In Step 2, we entered perfectionism (self-oriented and socially prescribed perfectionism). And in Step 3, we entered affect intensity (positive affectivity, negative intensity, and negative reactivity). In Model 2, we examined how perfectionism and affect intensity predicted each mode, but controlled for the overlap with the other two modes by including an additional step before entering perfectionism and affect intensity. In Step 1, we again entered gender and grade as control variables. In Step 2, we now entered the other two modes of perfectionistic self-presentation that were not the criterion (e.g., nondisplay of imperfection and nondisclosure of imperfection when perfectionistic self-promotion was the criterion). In Step 3, we then entered perfectionism (selforiented and socially prescribed perfectionism). And in Step 4, we entered affect intensity (positive affectivity, negative intensity, and negative reactivity). In all steps, predictors were entered simultaneously. Because the predictors showed substantial intercorrelations, we checked

for multicollinearity by examining if any predictor's variance inflation factor (VIF) exceeded the critical value of 10 (Kutner, Nachtsheim, & Neter, 2004). However, no predictor showed a VIF > 3.13 indicating that multicollinearity was not an issue.

Results showed a unique pattern of significant predictors for all three modes of perfectionistic self-presentation. Moreover, affect intensity predicted individual differences in perfectionistic self-presentation beyond perfectionism in two of the three modes of perfectionistic self-presentation: perfectionistic self-promotion and nondisplay of imperfection (see Table 2). Regarding (a) perfectionistic self-promotion, self-oriented perfectionism and positive affectivity showed positive regression weights in both models, as was expected. Furthermore, socially prescribed perfectionism showed a positive regression weight. In addition, negative reactivity showed a negative regression weight in Model 2 (when the overlap between the three forms of perfectionistic self-presentation was controlled for). Regarding (b) nondisplay of imperfection, self-oriented perfectionism and negative reactivity showed positive regression weights in both models, as was expected. In addition, positive affectivity showed a negative regression weight in Model 2. Regarding (c) nondisclosure of imperfection, socially prescribed perfectionism showed a positive regression weight in both models, as was expected. Affect intensity, however, did not explain any additional variance in nondisclosure of imperfection beyond perfectionism, neither in Model 1 nor in Model 2.

#### Discussion

The aim of the present study was to investigate whether perfectionism predicted individual differences in perfectionistic self-presentation in adolescents and whether affect intensity further predicted individual differences beyond perfectionism. In this, two forms of perfectionism (self-oriented perfectionism, socially prescribed perfectionism), three aspects of affect intensity (positive affectivity, negative intensity, negative reactivity), and three modes of perfectionistic self-presentation (perfectionistic self-promotion, nondisplay of imperfection, nondisclosure of imperfection) were examined. Results showed a unique prediction pattern for all three modes of perfectionistic self-presentation. Moreover, affect intensity contributed to perfectionistic self-presentation beyond perfectionism in two of the three modes. Perfectionistic self-promotion was predicted by high self-oriented perfectionism, high socially prescribed perfectionism, high positive affectivity, and low negative reactivity. In contrast, nondisplay of imperfection was predicted by high self-oriented perfectionism, high negative reactivity, and low positive affectivity. Nondisclosure of perfectionism was predicted by high socially prescribed perfectionism only.

Note that that the three modes of perfectionistic self-presentation showed unique patterns in the way they were predicted by the two forms of perfectionism, once the overlap between the two forms was controlled for: Perfectionistic self-promotion was predicted by high self-oriented perfectionism and high socially prescribed perfectionism; nondisplay of imperfection was predicted by high self-oriented perfectionism only; and nondisclosure of imperfection was predicted by high socially prescribed perfectionism only. Moreover, note that positive affectivity and negative reactivity showed opposite patterns in the prediction of perfectionistic selfpresentation and nondisplay of imperfection. Positive affectivity in adolescents appeared to support perfectionistic self-promotion and discourage nondisplay of imperfection. In contrast, negative reactivity appeared to support nondisplay of imperfection and discourage perfectionistic self-promotion.

The findings confirmed our expectation that self-oriented perfectionism would emerge as a positive predictor of perfectionistic self-promotion and nondisplay of imperfection whereas

socially prescribed perfectionism would emerge as a positive predictor of nondisclosure of imperfection. (In addition, socially prescribed perfectionism emerged as a positive predictor of perfectionistic self-promotion, which was not expected.) Furthermore the findings confirmed our expectation that positive affectivity would positively predict promotion-focused self-presentation (perfectionistic self-promotion) beyond perfectionism, but only partially confirmed our expectation that negative affectivity would positively predict prevention-focused selfpresentation. This was because only one aspect of negative affectivity predicted only one mode of prevention-focused self-presentation beyond perfectionism: Negative reactivity predicted only nondisplay of imperfection, but not nondisclosure of imperfection (whereas negative intensity predicted neither nondisplay of imperfection nor nondisclosure of imperfection).

Perfectionistic self-presentation may not only contribute to distress and psychological maladjustment in adolescence (Hewitt et al., 2011). Perfectionistic self-presentation may also disguise distress and psychological problems in adolescents, and be one of the reasons why psychological problems in adolescents are often not recognized (cf. Flett & Hewitt, 2013). Consequently it is important to understand what characteristics may contribute to individual differences in perfectionistic self-presentation in adolescents. The present findings suggest that perfectionism and affect intensity are characteristics that may explain what mode of selfpresentation adolescents use to present themselves as perfect and hide imperfections and psychological problems. Whereas adolescents high in self-oriented perfectionism and adolescents high in socially prescribed perfectionism try to appear perfect and impress onto others an image of faultlessness and flawless (perfectionistic self-promotion), there are differences in how they deal with imperfection. Adolescents high in self-oriented perfectionism are more likely to avoid displaying imperfection, that is, avoid situations where their behavior is under scrutiny if this is likely to highlight a personal shortcoming, mistake, or flaw. They do not want to appear imperfect because this would be incongruent with their personal expectations of perfection. In contrast, adolescents high in socially prescribed perfectionism are more likely to avoid disclosing imperfection, that is, avoid verbally admitting to concerns, mistakes, and perceived imperfections. They do not want to let others know that they are imperfect and so keep their problems to themselves because—in line with their conviction that others expect them to be perfect—they are afraid that disclosing imperfection may lead to social rejection (Hewitt et al., 2003).

In addition, individual differences in affect intensity may help predict what mode of perfectionistic self-presentation adolescents are likely to display. Whereas affect intensity appears to play no role beyond perfectionism in nondisclosure of imperfection, positive affectivity and negative reactivity appear to play a role in determining whether adolescents try not to appear imperfect (nondisplay of imperfection), or whether they try to appear perfect (perfectionistic self-promotion). Adolescents who frequently experience strong negative emotions in reactions to negative events are more likely to try not to appear imperfect, and less likely to try to appear perfect. In contrast, adolescents who frequently experience strong positive emotions are more likely to try to appear perfect, and less likely to try not to appear imperfect. With this the present finding suggests that affect intensity and reactivity may not only represent factors that predict periods of "storm and stress" (Hollenstein & Lougheed, 2013) but also contribute to perfectionistic self-presentation in adolescence.

The present study had a number of limitations. First, because the study was the first to investigate whether affect intensity contributes to individual differences in perfectionistic selfpresentation beyond perfectionism, future studies need to replicate the present findings before firm conclusions can be drawn. This includes the significant gender differences we found in

perfectionistic self-presentation because the majority of previous studies on perfectionistic selfpresentation in adolescents did not find meaningful gender differences (cf. Flett, Coulter, & Hewitt, 2012; Hewitt et al., 2011). Second, the study examined adolescents in early and middle adolescence. Future studies need to examine whether the present findings also hold for older adolescents and adults. This would also allow to address the low reliability of nondisclosure of imperfection in the present study, because such studies could use the adult form of the Perfectionistic Self-Presentation Scale (Hewitt et al., 2003) which captures nondisclosure of imperfection with more items and has shown higher reliability than the respective subscale of the junior form (Hewitt et al., 2011). Third, the study followed Hewitt and Flett's (1991) multidimensional model of perfectionism and examined only two forms of perfectionism: selforiented and socially prescribed perfectionism. Consequently, future studies need to explore if affect intensity contributes to individual differences in perfectionistic self-presentation beyond perfectionism also when other models and measures of perfectionism are regarded (cf. Frost et al., 1990; Slaney, Rice, Mobley, Trippi, & Ashby, 2001; Stoeber & Rambow, 2007). Finally, the study was cross-sectional. Correspondingly, we used the term prediction only in the statistical sense and could not make any claims about the temporal or causal quality of the relationships we found in the regression analyses. Future studies will need to employ longitudinal designs to confirm that the cross-sectional relationships we found replicate longitudinally.

Despite these limitations, the present findings have important implications for the understanding of perfectionistic self-presentation in adolescence because they are the first to suggest that individual differences in affect intensity play a contributing role in perfectionistic self-presentation in adolescence beyond individual differences in perfectionism. Moreover, because so far only few studies have investigated perfectionistic self-presentation in younger adolescents, the present findings make a significant contribution to the research literature on perfectionistic self-presentation in this under-researched population.

Furthermore, the present findings have implications for the treatment of perfectionism. First, if perfectionistic self-presentation is one reason why perfectionism is mostly maladaptive and associated with psychological maladjustment and distress, practitioners targeting perfectionism need to address perfectionistic self-presentation (cf. Flett & Hewitt, 2013). So far, however, treatment manuals and self-help guides have largely ignored perfectionistic selfpresentation (e.g., Antony & Swinson, 2009; Shafran, Egan, & Wade, 2010). Second, if—as the present findings suggest—both self-oriented and socially prescribed perfectionism contribute to perfectionistic self-presentation, the treatment of perfectionism needs to address both forms of perfectionism to be successful in reducing perfectionistic self-presentation. Third, the treatment should address negative affectivity because the present findings suggest that negative reactivity is a factor contributing to nondisplay of imperfection. Hence it is recommended that practitioners who want to target perfectionism as well as perfectionistic self-presentation use techniques that not only reduce both perfectionistic personal standards and perfectionistic concerns (e.g., the guided self-help intervention developed by Pleva & Wade, 2007), but also reduce negative affectivity (e.g., the CBT group intervention developed by Steele et al., 2013). Future studies investigating the treatment of perfectionism would profit from including measures of perfectionistic self-presentation to examine whether treating perfectionism also leads to a significant reduction of perfectionistic self-presentation and whether all modes of perfectionistic self-presentation are equally reduced.

Finally, we hope that the present findings stimulate further research on how personality characteristics contribute to individual differences in perfectionistic self-presentation and predict which mode of perfectionistic self-presentation—perfectionistic self-promotion, nondisplay of

imperfection, or nondisclosure of imperfection—people use to try and present a perfect picture of themselves.

#### References

- Antony, M. M., & Swinson, R. P. (2009). When perfect isn't good enough: Strategies for coping with perfectionism (2nd ed.). Oakland, CA: New Harbinger.
- British Psychological Society. (2009). Code of ethics and conduct. London: Author.
- Bryant, F. B., Yarnold, P. R., & Grimm, L. G. (1996). Toward a measurement model of the Affect Intensity Measure: A three-factor structure. Journal of Research in Personality, 30, 223-247.
- Chang, E. C., Sanna, L. L., Chang, R., & Bodem, M. R. (2008). A preliminary look at loneliness as a moderator of the link between perfectionism and depressive and anxious symptoms in college students: Does being lonely make perfectionistic strivings more distressing? Behaviour Research and Therapy, 46, 877-886.
- Chen, C., Hewitt, P. L., Flett, G. L., Cassels, T. G., Birch, S., & Blasberg, J. S. (2012). Insecure attachment, perfectionistic self-presentation, and social disconnection in adolescents. Personality and Individual Differences, 52, 936-941.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.
- Dunkley, D. M., & Blankstein, K. R. (2000). Self-critical perfectionism, coping, hassles, and current distress: A structural equation modeling approach. Cognitive Therapy and Research, 24, 713-730.
- Flett, G. L., Coulter, L.-M., & Hewitt, P. L. (2012). The Perfectionistic Self-Presentation Scale-Junior Form: Psychometric properties and association with social anxiety in early adolescents. Canadian Journal of School Psychology, 27, 136-149.
- Flett, G. L., Druckman, T., Hewitt, P. L., & Wekerle, C. (2012). Perfectionism, coping, social support, and depression in maltreated adolescents. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 30, 118-131.
- Flett, G. L., Galfi-Pechenkov, I., Molnar, D. S., Hewitt, P. L., & Goldstein, A. L. (2012). Perfectionism, mattering, and depression: A mediational analysis. Personality and Individual Differences, 52, 828-832.
- Flett, G. L., & Hewitt, P. L. (2013). Disguised distress in children and adolescents "flying under the radar": Why psychological problems are underestimated and how schools must respond. Canadian Journal of School Psychology, 28, 12-27.
- Flett, G. L., Hewitt, P. L., Boucher, D. J., Davidson, L. A., & Munro, Y. (2000). The Child-Adolescent Perfectionism Scale: Development, validation, and association with adjustment. Department of Psychology, University of British Columbia.
- Flett, G. L., Hewitt, P. L., & Cheng, W. M. W. (2008). Perfectionism, distress, and irrational beliefs in high school students: Analyses with an abbreviated Survey of Personal Beliefs for adolescents. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 26, 194-205.
- Flett, G. L., Hewitt, P. L., Oliver, J. M., & Macdonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism:* Theory, research, and treatment (pp. 89-132). Washington, DC: American Psychological Association.
- Flett, G. L., Madorsky, D., Hewitt, P. L., & Heisel, M. J. (2002). Perfectionism cognitions,

- rumination, and psychological distress. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 20, 33-47.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. Cognitive Therapy and Research, 14, 449-468.
- Hewitt, P. L., Blasberg, J. S., Flett, G. L., Besser, A., Sherry, S. B., Caelian, C., Papsdorf, M., Cassels, T. G., & Birch, S. (2011). Perfectionistic self-presentation in children and adolescents: Development and validation of the Perfectionistic Self-Presentation Scale-Junior Form. Psychological Assessment, 23, 125-142.
- Hewitt, P. L., Caelian, C. F., Flett, G. L., Sherry, S. B., Collins, L., & Flynn, C. A. (2002). Perfectionism in children: Associations with depression, anxiety, and anger. Personality and Individual Differences, 32, 1049-1061.
- Hewitt, P. L., & Flett, G. L. (1991). 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. (2004). Multidimensional Perfectionism Scale (MPS): Technical manual. Toronto, Canada: Multi-Health Systems.
- Hewitt, P. L., Flett, G. L., Sherry, S. B., Habke, M., Parkin, M., Lam, R. W., McMurtry, B., Ediger, E., Fairlie, P., & Stein, M. B. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. Journal of Personality and Social Psychology, 84, 1303-1325.
- Hewitt, P. L., Habke, A. M., Lee-Baggley, D. L., Sherry, S. B., & Flett, G. L. (2008). The impact of perfectionistic self-presentation on the cognitive, affective, and physiological experience of a clinical interview. Psychiatry: Interpersonal and Biological Processes, 71, 93-122.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), Advances in experimental social psychology (Vol. 30, pp. 1-46). New York: Academic Press.
- Hollenstein, T., & Lougheed, J. P. (2013). Beyond storm and stress: Typicality, transactions, timing, and temperament to account for adolescent change. American Psychologist, 68, 444-454.
- Jones, R. E., Leen-Feldner, E. W., Olatunji, B. O., Reardon, L. E., & Hawks, E. (2009). Psychometric properties of the Affect Intensity and Reactivity Measure adapted for Youth (AIR-Y). Psychological Assessment, 21, 162-175.
- Kutner, M. H., Nachtsheim, C. J., & Neter, J. (2004). Applied linear regression models (4th ed.). New York: McGraw-Hill.
- Larsen, R. J., & Diener, E. (1987). Affect intensity as an individual difference characteristic: A review. Journal of Research in Personality, 21, 1-39.
- Larsen, R. J., Diener, E., & Emmons, R. A. (1986). Affect intensity and reactions to daily life events. Journal of Personality and Social Psychology, 51, 803-814.
- Mackinnon, S. P., & Sherry, S. B. (2012). Perfectionistic self-presentation mediates the relationship between perfectionistic concerns and subjective well-being: A three-wave longitudinal study. Personality and Individual Differences, 53, 22-28.
- Mushquash, A. R., & Sherry, S. B. (2012). Understanding the socially prescribed perfectionist's cycle of self-defeat: A 7-day, 14-occasion daily diary study. Journal of Research in Personality, 46, 700-709.
- Nepon, T., Flett, G. L., Hewitt, P. L., & Molnar, D. S. (2011). Perfectionism, negative social feedback, and interpersonal rumination in depression and social anxiety. Canadian Journal of Behavioural Science, 43, 297-308.

- Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). New York: McGraw-
- O'Connor, R. C., & O'Connor, D. B. (2003). Predicting hopelessness and psychological distress: The role of perfectionism. Journal of Counseling Psychology, 50, 362-372.
- Pleva, J., & Wade, T. D. (2007). Guided self-help versus pure self-help for perfectionism: A randomised controlled trial. Behaviour Research and Therapy, 45, 849-861.
- Rice, K. G., Richardson, C. M. E., & Clark, D. (2012). Perfectionism, procrastination, and psychological distress. Journal of Counseling Psychology, 59, 288-302.
- Shafran, R., Egan, S., & Wade, T. (2010). Overcoming perfectionism: A self-help guide using cognitive behavioral techniques. London: Robinson.
- Sherry, S. B., Hewitt, P. L., Flett, G. L., Lee-Baggley, D. L., & Hall, P. A. (2007). Trait perfectionism and perfectionistic self-presentation in personality pathology. Personality and *Individual Differences*, 42, 477-490.
- Sherry, S. B., Law, A., Hewitt, P. L., Flett, G. L., & Besser, A. (2008). Social support as a mediator of the relationship between perfectionism and depression: A preliminary test of the social disconnection model. Personality and Individual Differences, 45, 339-344.
- Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The revised Almost Perfect Scale. Measurement and Evaluation in Counseling and Development, 34, 130-145.
- Steele, A. L., Waite, S., Egan, S. J., Finnigan, J., Handley, A., & Wade, T. D. (2013). Psychoeducation and group cognitive-behavioural therapy for clinical perfectionism: A case-series evaluation. Behavioural and Cognitive Psychotherapy, 41, 129-143.
- Steinberg, L. (2011). Adolescence (9th ed.). New York: McGraw-Hill.
- Stoeber, J. (in press). How other-oriented perfectionism differs from self-oriented and socially prescribed perfectionism. Journal of Psychopathology and Behavioral Assessment. Available from http://link.springer.com/article/10.1007/s10862-013-9397-7
- Stoeber, J. (2012). Perfectionism and performance. In S. M. Murphy (Ed.), The Oxford handbook of sport and performance psychology (pp. 294-306). New York: Oxford University Press.
- Stoeber, J., & Childs, J. H. (2011). Perfectionism. In R. J. R. Levesque (Ed.), Encyclopedia of adolescence (Vol. 4, Part 16, pp. 2053-2059). New York: Springer.
- Stoeber, J., Feast, A. R., & Hayward, J. A. (2009). Self-oriented and socially prescribed perfectionism: Differential relationships with intrinsic and extrinsic motivation and test anxiety. Personality and Individual Differences, 47, 423-428.
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. Personality and Social Psychology Review, 10, 295-319.
- Stoeber, J., & Rambow, A. (2007). Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. Personality and Individual Differences, 42, 1379-
- Summerville, A., & Roese, N. J. (2008). Self-report measures of individual differences in regulatory focus: A cautionary note. Journal of Research in Personality, 42, 247-254.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.
- Tsang, K. L. V., Wong, P. Y. H., & Lo, S. K. (2012). Assessing psychosocial well-being of adolescents: A systematic review of measuring instruments. Child: Care, Health and Development, 38, 629-646.

Table 1 Correlations

Variable	1	2	3	4	5	6	7	8	9
Perfectionistic self-presentation									
1. Perfectionistic self-promotion									
2. Nondisplay of imperfection	.62***								
3. Nondisclosure of imperfection	.37***	.41***							
Perfectionism									
4. Self-oriented perfectionism	.65***	.58***	.23*						
5. Socially prescribed perfectionism	.52***	.42***	.32***	.60***					
Affect intensity									
6. Positive affectivity	.43***	.34***	.14	.32***	.17				
7. Negative intensity	.49***	.50***	.35***	.40***	.42***	.60***			
8. Negative reactivity	.30**	.51***	.31***	.29**	.14	.61***	.69***		
9. Gender	.22*	.27**	.28**	.20*	.12	.27**	.45***	.55***	
10. Grade	05	07	04	.14	.21*	16	01	06	.03
M	2.67	3.17	3.00	2.80	2.65	3.95	3.48	3.84	_
SD	0.91	0.88	0.88	0.64	0.81	0.88	0.98	1.08	_
Cronbach's alpha	.87	.79	.66	.78	.86	.89	.73	.74	_

Note. N = 118 adolescents. Gender was coded +1 (female) and -1 (male), and grade +1 (10th grade) and -1 (7th grade). \*p < .05. \*\*p < .01. \*\*\*p < .001.

Table 2 Summary of Multiple Regression Analyses: Effects of Perfectionism and Affect Intensity (Model 1) Additionally Controlling for the Overlap Between Modes of Perfectionistic Self-Presentation (Model 2)

	Perfectionistic self-promotion		Nondisplay of imperfection		Nondisclosure of imperfection	
	$\Delta R^2$	β	$\Delta R^2$	β	$\Delta R^2$	β
Model 1						
Step 1: Control variables	.053*		.077**		.080**	
Gender		.23*		.27**		.28**
Grade		06		07		05
Step 2: Perfectionism	.429***		.320***		.091**	
Self-oriented perfectionism		.50***		.48***		.02
Socially prescribed perfectionism		.24**		.15		.30**
Step 3: Affect intensity	.051**		.107***		.041	
Positive affectivity		.19*		14		17
Negative intensity		.18		.12		.15
Negative reactivity		14		.39***		.20

[Table 2, continued]

Model 2						
Step 2: Perfectionistic self-presentation	.352***		.360***		.138***	:
Perfectionistic self-promotion		_		.53***		.17
Nondisplay of imperfection		.56***		_		.26*
Nondisclosure of imperfection		.13		.19*		_
Step 3: Perfectionism	.145***		.059**		.033	
Self-oriented perfectionism		.37***		.32**		20
Socially prescribed perfectionism		.17*		.02		.21*
Step 4: Affect intensity	.057**		.086***		.021	
Positive affectivity		.26**		18*		19
Negative intensity		.13		.04		.08
Negative reactivity		29**		.42***		.15

Note. N = 118 adolescents. Gender was coded +1 (female) and -1 (male), and grade +1 (10th grade) and -1 (7th grade). Step1 of Model 2 is not displayed because it is the same as Step 1 of Model 1. "—" = not applicable. \*p < .05. \*\*p < .01. \*\*\*p < .001.