
DOI
https://doi.org/10.1016/j.paid.2014.11.040

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Moral Perfectionism and Moral Values, Virtues, and Judgments: A Preliminary Investigation

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Abstract

Moral perfectionism has a long tradition in philosophical inquiry, but so far has been ignored in psychological research. This article presents a first psychological investigation of moral perfectionism exploring its relationships with moral values, virtues, and judgments. In three studies, 539 university students responded to items of the Frost Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990) adapted to measure personal moral standards (PMS) and concern over moral mistakes (CMM) and completed measures of moral values, virtues, and forgiveness, gratitude, and wrong behavior judgments. When partial correlations were computed controlling for the overlap between PMS and CMM, PMS showed positive correlations with moral values, virtues, reciprocal helping, forgiveness, and condemnation of wrong behaviors. In contrast, CMM showed a positive correlation only with indebtedness and a negative correlation with self-reliance. The present findings, while preliminary, suggest that moral perfectionism is a personality characteristic that may help explain individual differences in moral values, virtues, and judgments.

Keywords: moral perfectionism; personal standards; concern over mistakes; moral values; virtues; moral judgments; forgiveness; gratitude

1. Introduction

Moral perfectionism is an important topic in philosophy that is usually linked to the search for high moral standards and the effort to achieve a truly meaningful life. For example, in the Nicomachean Ethics, Aristotle who lived from 384 to 322 BC argued that a good life consisted of moral and intellectual virtues, and that moral virtue was the disposition to behave in the right manner (Aristotle, n.d./1980). In the Critique of Practical Reason, Kant (1788/1997) asserted that the highest good of humanity was complete moral virtue and complete happiness, with the former being the condition to deserve the latter. Relatedly, the relationship of moral perfectionism with moral judgment has been discussed in moral philosophy from the end of the 19th century. For example, Dewey held that moral perfectionism influenced moral judgment by searching for permanent, universal, and rational foundations (see Mougán, 2009). Furthermore, Cavell was convinced that moral perfectionism provided reasons for moral judgments (see Falomi, 2010, for a review). In sum, there is a long tradition in philosophy linking moral perfectionism to key aspects of morality such as moral values, virtues, and judgments. In contrast,
psychological research—while making great progress in the understanding of general perfectionism in the past 25 years (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991)—has so far ignored moral perfectionism. Consequently, no empirical study has yet examined whether moral perfectionism is actually associated with moral values, virtues, and judgments.

1.1. Perfectionism Dimensions and Domains

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 (Frost et al., 1990; Hewitt & Flett, 1991). Consequently, perfectionism is best conceptualized as a multidimensional personality disposition. Factor analyses comparing various measures of multidimensional perfectionism have found two superordinate dimensions of perfectionism that are referred to as personal standards perfectionism and evaluative concerns perfectionism (Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000). Personal standards perfectionism captures perfectionists’ exceedingly high standards of performance and striving for perfection. In contrast, evaluative concerns perfectionism captures perfectionists’ concern over mistakes and fear of negative evaluations if they fail to live up to their perfectionistic standards. The differentiation of the two dimensions is important. Whereas evaluative concerns perfectionism has been associated with negative characteristics, processes, and outcomes (e.g., neuroticism, maladaptive coping, negative affect), personal standards perfectionism has been associated with positive characteristics, processes, and outcomes (e.g., conscientiousness, adaptive coping, positive affect), particularly when statistical analyses control for the overlap with evaluative concerns perfectionism, for example, by means of partial correlations (see Stoeber & Otto, 2006, for a review).

Whereas earlier research established that perfectionism mainly affects people’s work or, in the case of students, their academic studies (Slaney & Ashby, 1996), there is growing evidence that few perfectionists are perfectionistic in all domains of their lives (Stoeber & Stoeber, 2009). Instead, perfectionism is often domain-specific (Dunn, Gotwals, & Causgrove Dunn, 2005; McArdle, 2010). Moreover, domain-specific measures of perfectionism appear to be better predictors of domain-specific characteristics, processes, and outcomes than general measures of perfectionism (e.g., Dunn, Craft, Causgrove Dunn, & Gotwals, 2011). Consequently, researchers have begun to use domain-specific measures of multidimensional perfectionism when examining
how perfectionism relates to specific domains of peoples’ lives such as sports, parenting, sexuality, and physical appearance (Dunn et al., 2011; Snell, Overbey, & Brewer, 2005; Stoeber, Harvey, Almeida, & Lyons, 2013; Yang & Stoeber, 2012).

1.2. Moral Perfectionism

Following these recent developments, we see moral perfectionism as a domain-specific form of perfectionism specifically related to the domain of morality. Moreover, we propose that—like general perfectionism—moral perfectionism should comprise two superordinate dimensions: one dimension capturing perfectionist personal standards regarding morality, and one dimension capturing perfectionist evaluation concerns regarding morality. Finally, in line with philosophical theory on moral perfectionism asserting that moral perfectionism is related to moral values, virtues, and judgments, we expect that moral perfectionism should show significant relationships with moral values, virtues, and judgments.

Whereas there are no psychological studies examining how moral perfectionism is related to moral values, virtues, and judgments, there are three studies examining general perfectionism: one study examining goals including the goal to behave in a perfectly moral and ethical fashion (Flett, Sawatzky, & Hewitt, 1995), one study examining moral judgments (Agerström, Möller, & Archer, 2006), and one examining virtues (Mu, 2011). Findings were mixed. Flett and colleagues (1995), using two different multidimensional measures of perfectionism, did not find any aspects of perfectionism to show significant correlations with commitment to the goal to behave in a perfectly moral and ethical fashion, except for one aspect closely related to personal standards perfectionism: Organization (i.e., being organized and orderly) showed a small positive correlation with goal commitment to behave in a perfectly moral and ethical fashion. Agerström and colleagues (2006), using a multidimensional perfectionism scale to measure perfectionism, but computing an overall perfectionism score combining the different dimensions of perfectionism, did not find any significant relationships between perfectionism and moral judgments measured with two vignettes presenting participants with moral dilemmas. In contrast, Mu (2011), using the perfectionism subscale of the Sixteen Personality Factor Questionnaire (Cattell, Eber, & Tatsuoka, 1970) to measure perfectionism, found perfectionism to show significant positive correlations with four of the five virtues captured by the Virtue Adjectives Rating Scale (Mu & Gu, 2010), namely diligence, resourcefulness, self-reliance, and serenity (cf. 2.2.3.).
1.3. The Present Research

Against this background, the aim of the present research was to provide a first investigation of how moral perfectionism is related to moral values, virtues, and judgments differentiating personal standards and evaluative concerns dimensions of moral perfectionism. Moreover, we aimed to investigate different moral judgments regarding forgiveness, gratitude, and wrong behaviors. To this aim, three studies were conducted with overall 539 Chinese university students who completed items of the Chinese version of the Frost Multidimensional Perfectionism Scale (Frost et al., 1990) adapted to measure personal moral standards (PMS) and concern over moral mistakes (CMM) capturing the personal standards and evaluative concerns dimensions of perfectionism. In line with previous findings that personal standards perfectionism is associated with positive characteristics, processes, and outcomes, we expected PMS to show significant positive correlations with moral values, virtues, and judgments, particularly when the overlap with CMM was controlled for (cf. Stoeber & Otto, 2006). In contrast, we did not have clear expectations regarding CMM. Hence the analyses regarding CMM were mostly exploratory.

2. Method

2.1. Participants and Procedure

A sample of 539 students, studying at a large university in the eastern coastal region of the People’s Republic of China, was recruited after classes for participation in the three studies detailed below: Study 1 ($N = 168$; 69 male, 90 female, 9 with no gender indicated), Study 2 ($N = 206$; 91 male, 115 female), and Study 3 ($N = 165$; 73 male, 89 female, 3 with no gender indicated). Students were on average 20.2 years old ($SD = 1.8$), volunteered to participate in the studies without compensation, and completed paper-and-pencil versions of the measures. All students completed the measure of moral perfectionism. In addition, they completed measures of moral values (Study 1), virtues (Study 2), and forgiveness, gratitude, and wrong behavior judgments (Study 3).

2.2. Measures

2.2.1. Moral Perfectionism

To measure moral perfectionism, we adapted the 12 items of Chinese version of the Frost Multidimensional Perfectionism Scale (Frost et al., 1990) adapted to measure personal moral standards (PMS) and concern over moral mistakes (CMM) capturing the personal standards and evaluative concerns dimensions of perfectionism. In line with previous findings that personal standards perfectionism is associated with positive characteristics, processes, and outcomes, we expected PMS to show significant positive correlations with moral values, virtues, and judgments, particularly when the overlap with CMM was controlled for (cf. Stoeber & Otto, 2006). In contrast, we did not have clear expectations regarding CMM. Hence the analyses regarding CMM were mostly exploratory.

1 An English translation of the items comprising the measures described in 2.2.2, 2.2.3, and 2.2.6 is available online as supplementary material [see Appendix].
Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990; Chinese FMPS: Zi & Zhou, 2006; see also Yang, 2007) that measured personal standards and concern over mistakes following procedures established in previous research for adapting FMPS items to capture domain-specific perfectionism (e.g., McArdle, 2010). The 5 items (Items 4, 12, 19, 24, and 30) from the Chinese FMPS Personal Standards subscale were adapted to measure personal moral standards (PMS; e.g., “If I do not set the highest moral standards for myself, I am likely to end up a second-rate person”), and the 7 items from the Chinese FMPS Concern over Mistakes subscale (Items 9, 13, 18, 21, 23, and 25) were adapted to measure concern over moral mistakes (CMM; e.g., “People will probably think less of me if I make a moral mistake”). Participants were told that the items reflected statements about personal characteristics and traits of morality and asked to indicate to what extent they agreed with the statements responding on a scale from 1 (strongly disagree) to 5 (strongly agree).

2.2.2. Moral Values

To measure moral values, we used the Moral Values subscale of the Adolescents’ Value Scale developed by Chen (2008). The subscale comprises 15 items describing moral values (e.g., honesty, kindness, respect for others). Participants were told that the items described moral values and asked to indicate how important these values were to them responding on a scale from 1 (very unimportant) to 5 (very important).

2.2.3. Virtues

To measure virtues, we used the Virtue Adjectives Rating Scale (VARS) developed by Mu and Gu (2010) following the construction of the Virtues Scale (see Cawley, Martin, & Johnson, 2000). The VARS comprises 90 items consisting of adjectives capturing five virtues: honesty (32 items; e.g., honest, sincere), diligence (26 items; e.g., diligent, serious), resourcefulness (17 items; e.g., resourceful, smart), self-reliance (8 items; e.g., self-reliant, independent), and serenity (7 items; e.g., serene, peaceful). Participants were told that the adjectives could be used to describe a person and asked to indicate the extent to which the adjectives were true descriptions of themselves responding on a scale from 1 (absolutely not true) to 5 (absolutely true).

2.2.4. Forgiveness Judgments

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2Differently from the original FMPS which has 7 personal standards and 9 concern over mistakes items, the Chinese FMPS has only 5 and 7 items, respectively.
To measure forgiveness judgments, we used a translation of the forgiveness vignette developed by Girard and Mullet (1997, p. 212) replacing the French names with Chinese names and “sisters” with “classmates.” The vignette described a situation from a second-person narrative (you) where Xiao Li, a classmate of yours, disclosed some personal information about you to your line manager in the company you work for. As a consequence, you are denied a promotion. Xiao Li, remorseful, feels very sorry about what happened and asks you to forgive him or her. Participants were asked if they thought they would forgive Xiao Li responding on a scale from 1 (not at all) to 5 (extremely).

2.2.5. Gratitude Judgments

To measure gratitude judgments, we used the gratitude vignette developed by D. S. Wang (2008) in reference to research by Watkins, Scheer, Ovnicek, and Kolts (2006) differentiating gratitude and indebtedness. The vignette read: “You are preparing for a graduate study admissions exam of a top university. Unfortunately, the university does not provide copies of previous exams. You have been trying for half a year to get some copies but failed to do so because you don’t know anybody at the university. One day, however, you meet Zhang on the university’s BBS [Bulletin Board System]. He is a graduate student of the program you are applying to. You tell him about your problem. He is willing to help you because he had the same problem. He helps you to get copies of previous exams and course notes for references. As a result, you pass the exam and become a graduate student at the university one year later. One day, you again meet Zhang on the BBS and learn that he needs your help. How would you feel?” Gratitude was measured with three items (grateful, thankful, appreciatory) and indebtedness with two items (indebted, sense of duty). In addition, two further items (would help him as best as I can, would help him again if he needs help in the future) measured willingness to help in return. Participants responded to all items on a scale from 1 (not at all) to 5 (extremely).

2.2.6. Wrong Behavior Judgments

To measure wrong behavior judgments, we used the Wrong Behavior Scale developed by Wei and Hwang (1998). The scale consists of 18 items describing acts violating social norms (6 items; e.g., tax evasion), violating others’ rights (5 items; e.g., using other people’s belongings without permission), and violating family ethics (7 items; e.g., having an extramarital affair). Participants were asked to evaluate how “wrong” they thought these acts were if they had committed them responding on a scale from 1 (not wrong) to 5 (absolutely wrong).
2.3. Preliminary Analyses

Following the procedures recommended by Russell (2002), we conducted an exploratory factor analysis of the responses to the 12 moral perfectionism items from the total sample \( (N = 539) \) using principal factor extraction and promax rotation to examine (a) whether the items formed two factors (personal moral standards, concern over moral mistakes) and (b) whether all items showed their primary loading on the expected factor. Both was the case.\(^3\) Consequently, we computed scale scores for personal moral standards and concern over moral mistakes by averaging the respective item responses, and did the same for the other scales. Next, we examined whether the variance-covariance matrices of male and female participants differed by computing Box’s \( M \) tests with gender as between-participants factor. Because Box’s \( M \) is highly sensitive to even minor differences, it is tested against a \( p < .001 \) significance level (Tabachnick & Fidell, 2007). In all three studies, Box’s \( M \) was nonsignificant with \( p > .05 \). Consequently, all analyses were collapsed across gender. Finally, we examined the reliability (internal consistency) of the scale scores by computing Cronbach’s alphas. All scores displayed satisfactory reliability (see Table 1) except indebtedness (alpha = .51) and the wrong behavior judgments (alphas = .60-.69). Whereas problematic when used for individual assessment, scores with alphas < .70 are still useful for research purposes (Nunnally & Bernstein, 1994). Hence all scores were retained for further analysis.

3. Results

First, we examined bivariate correlations (see Table 1). As expected, personal moral standards (PMS) showed positive correlations with moral values, three of the five virtues (honesty, diligence, serenity), and all moral judgments: forgiveness, the three gratitude judgments (gratitude, indebtedness, willingness to help), and the three wrong behavior judgments (regarding acts violating social norms, others’ rights, and family ethics). In contrast, concern over moral mistakes (CMM) showed positive correlations only with moral values, one of the virtues (diligence), two of the gratitude judgments (gratitude, indebtedness), and two of the wrong behavior judgments (violating others’ rights and family ethics).

Because PMS and CMM showed intercorrelations from .57 to .61 across the three studies (all \( ps < .001 \)), we next examined partial correlations controlling for the overlap between PMS

\(^3\)Details are available from the first author.
and CMM (see again Table 1). Results showed that PMS continued to show significant positive correlations with moral values, forgiveness, and all wrong behavior judgments. In addition, PMS now showed positive correlations with all five virtues including resourcefulness and self-reliance. Regarding gratitude judgments, however, the significant positive correlations with gratitude and indebtedness became nonsignificant once CMM was partialled out leaving only the positive correlation with willingness to help. In contrast, all of CMM’s significant correlations became nonsignificant once PMS were partialled out, with two notable exceptions. First, CMM continued to show a positive correlation with indebtedness. Second, CMM now showed a negative correlation with self-reliance so that—once the overlap between the two dimensions was controlled for—PMS and CMM showed opposite relationships with self-reliance: PMS positive, and CMM negative.

Finally, it was noteworthy that gratitude showed a unique pattern of correlations because it was the only moral judgment that both PMS and CMM showed significant bivariate, but not significant partial correlations with suggesting that both dimensions of moral perfectionism contributed to the positive relationships with gratitude.

4. Discussion

The aim of the present research was to provide a first investigation of how moral perfectionism is related to moral values, virtues, and judgments. In this, following Frost et al.’s (1990) multidimensional model of perfectionism, we differentiated two dimensions of moral perfectionism: personal moral standards and concern over moral mistakes. As expected from philosophical reflections on moral perfectionism, moral perfectionism was associated with moral values, virtues, and judgments. However, in line with psychological research findings showing differential relationships for personal standards perfectionism and evaluative concerns perfectionism, only the personal moral standards dimension showed unique positive correlations with moral values, virtues, forgiveness, willingness to help, and wrong behavior judgments. This suggests that people, who have perfectionistic moral standards, have higher moral values, possess more virtues, are more inclined to show forgiveness, are more willing to help in return if someone helps them, and are more self-critical of their wrongdoings compared to people who do not have such high moral standards. In contrast, concern over moral mistakes showed only two unique correlations—a positive correlation with indebtedness and a negative correlation with self-reliance—suggesting that people who are concerned about making moral mistakes lack the
virtue of self-reliance and are more likely to feel indebted when someone helps them (but not more likely to help in return) compared to people who do not have such concerns.

The differential relationships of personal moral standards and concern over moral mistakes dovetail with findings from research on general perfectionism showing that personal standards perfectionism is often associated with positive characteristics, processes, and outcomes whereas evaluative concerns perfectionism is associated with negative characteristics, processes, and outcomes (Stoeber & Otto, 2006). In the present research, only the personal standards dimension of moral perfectionism showed a consistent pattern of unique positive relationships with moral values, virtues, and judgments whereas the concern over mistakes dimension of moral perfectionism showed a unique positive relationship only with indebtedness. Indebtedness, however, is not a positive state. Whereas gratitude is associated with pleasant emotions such as feeling happy, fortunate, and content, indebtedness is associated with unpleasant emotions such as feeling guilty and obligated (Watkins et al., 2006). Moreover, in a study with Asian students, indebtedness loaded on the same factor as shame, regret, and uneasiness (Naito, Wangwan, & Tani, 2005) further corroborating that, unlike gratitude and thankfulness, indebtedness is a negative state. Consequently, the finding that concern over moral mistakes showed a unique positive correlation with indebtedness is in line with previous findings that evaluative concerns aspects of perfectionism are associated with negative processes and outcomes.

The present research has a number of limitations. First, it presents the first empirical study investigating the relationships of moral perfectionism and moral values, virtues, and judgments. Hence all findings should be considered preliminary and need to be replicated in future research. Second, the present study investigated Chinese students who may have different views of morality than Western students (e.g., Hwang, 2006; Jackson et al., 2008). In Confucian ethics, Ren (仁, benevolence) is defined as a moral virtue that a righteous person experiences when being altruistic (Wu, 2013; see also Q. Wang & Li, 2003). “Everyone can be Shun and Yao”—referring to two ancient sages with this virtue—represents the basic moral belief that encourages people to strive for perfect morality which has been linked to gratitude in Chinese students (Chan, 2012). Similarly, Taoism insists that people should constantly strive for perfect morality through Wu Wei (无为, non-action) because “superior virtue is not virtuous” (Daode Jing, Trans., 2011). Moreover, two recent studies found multidimensional perfectionism to show different relationships in Asian and Western students (Chang, Chang, & Sanna, 2012; Stoeber, Kobori, &
Consequently, future research needs to investigate if the present findings also hold for Western students. In addition, future research should control for social desirability because students may present themselves as perfectionistic to make a positive impression (Stoeber & Hotham, 2013). Moreover, future studies may profit from including non-student samples (e.g., community samples) to examine if the present findings generalize beyond university students.

Finally, the present research, which followed Frost et al.’s (1990) model of multidimensional perfectionism using adaptations of two subscales from the FMPS to measure moral perfectionism, focused primarily on personal aspects of moral perfectionism (personal moral standards, concern over moral mistakes). With this, it largely ignored the social aspects of perfectionism such as socially prescribed perfectionism and other-oriented perfectionism that are prominent in other models of multidimensional perfectionism (Hewitt & Flett, 1991; Hill et al., 2004). Whereas some FMPS items capturing concern over mistakes make reference to others (e.g., “People will probably think less of me if I make a mistake”), future research may expand on the present findings by considering models and measures of perfectionism that better differentiate personal and social aspects of moral perfectionism.

Despite these limitations, the findings of the present research make a significant novel contribution to the perfectionism literature because they represent the first psychological investigation of moral perfectionism and its relationships with moral values, virtues, and judgments. Whereas the present findings corroborate views held in philosophical theory on moral perfectionism that moral perfectionism is associated with moral values, virtues, and judgments, the findings indicate that it is important to differentiate personal standards and evaluative concerns when regarding moral perfectionism. Only perfectionist moral standards, but not perfectionist moral concerns showed consistent positive relationships with moral values, virtues, and judgments. Thus, as with general perfectionism, it appears that moral perfectionism has different dimensions showing differential validities and therefore is best conceptualized as a multidimensional characteristic. Whereas further studies are required to establish what role the different dimensions of moral perfectionism play in explaining individual differences in moral values, virtues, judgments, and behaviors, we hope that the present findings may inspire further psychological research on moral perfectionism and its correlates and consequences.
References


Psychopathology and Behavioral Assessment, 17, 111-124.


Russell, D. W. (2002). In search of underlying dimensions: The use (and abuse) of factor


### Table 1

*Personal Moral Standards (PMS) and Concern over Moral Mistakes (CMM) Dimensions of Moral Perfectionism: Descriptive Statistics and Bivariate vs. Partial Correlations*

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>M±SD</strong></td>
<td><strong>α</strong></td>
<td><strong>PMS</strong></td>
</tr>
<tr>
<td><strong>Study 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral values</td>
<td>4.25±0.66</td>
<td>.94</td>
<td>.24**</td>
</tr>
<tr>
<td><strong>Study 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honesty</td>
<td>3.92±0.56</td>
<td>.95</td>
<td>.34***</td>
</tr>
<tr>
<td>Diligence</td>
<td>3.42±0.65</td>
<td>.94</td>
<td>.39***</td>
</tr>
<tr>
<td>Resourcefulness</td>
<td>3.22±0.67</td>
<td>.88</td>
<td>.13</td>
</tr>
<tr>
<td>Self-reliance</td>
<td>3.58±0.73</td>
<td>.86</td>
<td>.13</td>
</tr>
<tr>
<td>Serenity</td>
<td>3.71±0.74</td>
<td>.94</td>
<td>.18*</td>
</tr>
<tr>
<td><strong>Study 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forgiveness judgments</td>
<td>3.13±1.73</td>
<td>n/a</td>
<td>.27***</td>
</tr>
<tr>
<td>Gratitude judgments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gratitude</td>
<td>4.11±0.77</td>
<td>.81</td>
<td>.17*</td>
</tr>
<tr>
<td>Indebtedness</td>
<td>3.69±0.94</td>
<td>.51</td>
<td>.20*</td>
</tr>
<tr>
<td>Willingness to help</td>
<td>4.35±0.67</td>
<td>.73</td>
<td>.21**</td>
</tr>
<tr>
<td>Wrong behavior judgments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts violating social norms</td>
<td>4.06±0.58</td>
<td>.60</td>
<td>.23**</td>
</tr>
<tr>
<td>Acts violating others’ rights</td>
<td>3.92±0.62</td>
<td>.69</td>
<td>.24**</td>
</tr>
<tr>
<td>Acts violating family ethics</td>
<td>3.18±0.64</td>
<td>.60</td>
<td>.33***</td>
</tr>
</tbody>
</table>

**Note.** Study 1: N = 168; Study 2: N = 206; Study 3: N = 165. α = Cronbach’s alpha. All scale scores are mean scores computed by averaging responses across items. The descriptive statistics (M±SD, α) for PMS and CMD (combined sample [N = 539]) were 3.04±0.89, .77 and 2.49±0.83, .80. See 2.2 for further details.  
*p < .05. **p < .01. ***p < .001.
Appendix

Online Supplementary Material

English Translation of the Items Comprising the Measures
Described in 2.2.2., 2.2.3., and 2.2.6.

2.2.2. Moral Values

Moral Values subscale (15 items): honesty, kindness, respect for others, abide by the law, dedication, self-discipline, care for others, sympathy, nobility, self-esteem, modesty, living a simple life, personal accomplishment, sincerity, politeness.

2.2.3. Virtues

Honesty (32 items): honest, sincere, kind-hearted, friendly, courteous, lenient, loyal, frank, righteous, generous, open and above-board, practical, tolerant, integer, straightforward, trustworthy, magnanimous, direct, speaking one’s mind, amiable, trustworthy, generous, bounteous, easy-going, humble, self-effacing, upright, dutiful, law-abiding, zealous, cheerful, not bothered about small matters.

Diligence (26 items): diligent, serious, thrifty, living a simple life, elegant, striving, cautious, rigorous, accurate, careful, attentive, graceful, modest, orderly, hard-working, self-controlled, elegant, making good use of one’s time, well-mannered, pure, realistic, benign, practical, conscientious, tidy, uncomplaining.

Resourcefulness (17 items): resourceful, smart, flexible, clever, fast, sensible, intelligent, active, insightful, capable, wise, sagacious, optimistic, decisive, free and easy, competent, unhurried.

Self-reliance (8 items): self-reliant, independent, strong, firm, staunch, brave, self-confident, steadfast.

Serenity (7 items): serene, peaceful, dignified, rational, reasonable, cool-headed, forbearing.

2.2.6. Wrong Behavior Judgments

Acts violating social norms (6 items): tax evasion, giving a gift to bribe someone or being
bribed, trying to be first and not standing in a queue, using insider information to make a profit in
the stock market, littering, maltreating one’s child.

Acts violating others’ rights (5 items): using other people’s belongings without permission, keeping valuables that others have lost, being late for appointments or forgetting appointments, reading others’ private letters and diaries without permission, smoking in a non-smoking area.

Acts violating family ethics (7 items): having an extramarital affair, divorcing because of disengagement, unmarried cohabitation, filing a property lawsuit against relatives, getting married against parents’ will, not providing the living costs for parents in old age.

Note. All translations by Hongfei Yang, Shou-kuan Mu, and Joachim Stoeber with the exception of 2.2.6., Acts violating social norms (6 items) for which we adopted the translations provided by Hwang (2006, p. 280).