# Two of a Kind or Distant Relatives?

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Two of a kind or distant relatives? A multimethod investigation of the overlap between personality traits and character strengths

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Abstract

Allport's distinction of personality devaluated (personality) and personality evaluated (character) raised the question if character is redundant with personality, which still remains open today. The present study hence compares the Five-Factor Model of personality and the VIA-classification of character strengths across two methods (self- and peer-reports) and across two levels of abstraction (domains/factors and scales/facets). A sample of 152 participants and 152 peer-raters completed the NEO-Personality Inventory Revised and the VIA Inventory of Strengths. Personality and character assessed with these inventories were found to strongly overlap, yet the different operationalizations were rarely redundant (except for three personality facets). Multitrait-multimethod analyses mostly supported the convergent and discriminant validity of personality and character. Interpersonal strengths (e.g., teamwork) and abstract character factors lacked discriminant validity to personality facets. The present investigation contributes to a better understanding of the interplay between personality and character and provides an impetus for future research on the "virtue gap" between devaluated and evaluated personality traits.

Keywords: Five-Factor Model of personality, Big Five, character strengths, virtues, personality facets, positive psychology

PERSONALITY AND CHARACTER

Personality and character represent the core temperamental individual differences between people (Allport, 1921). The meaning and evaluation of these constructs varied with time and societal circumstances (e.g. Nicholson, 1998). Nevertheless, the functions of both constructs are similar: To describe individual differences between people and to predict behavioral outcomes (Ozer & Benet-Martínez, 2006; Peterson & Seligman, 2004). Allport (1927) postulated: "There is likewise confusion between personality *devaluated* and personality *evaluated*, that is, between personality and character" (p. 285). He also pointed out the ambiguity and context-dependence of "moral traits" (Allport, 1927, p. 285), and consequently suggested that personality should be studied in psychology, while character rather belonged to social ethics (Allport, 1921; Stahlmann & Ruch, 2020). Probably due to this distinction, psychology focused on the more 'neutral' personality traits and psychological disorders rather than positively evaluated personality characteristics (Peterson & Seligman, 2004; Seligman & Csikszentmihalyi, 2000). Due to the renewed interest in character within positive psychology and the VIA-classification of character strengths and virtues (VIA-CSV, Peterson & Seligman, 2004), the question on what distinguishes personality and character has gained attention again. The present study seeks to add new insights to this question by investigating the overlap of the most frequent approaches to personality and character, namely the Five-Factor Model of personality and the VIA-CSV.

While several conceptualizations of personality exist, the most prominent personality model entails five broad factors, and is most commonly referred to as the Five-Factor Model (FFM) of personality. Its development is mainly rooted in psycholexical studies of trait terms (where Goldberg in 1990 initially used the label "Big Five"), yet it was also recovered from questionnaire data. The Revised NEO Personality Inventory (NEO-PI-R) is an influential instrument, which measures the five broad traits/domains (i.e., extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness) and six facets per domain (e.g., Costa & McCrae, 1992). The five-factor structure was found to be valid and rather stable in

many languages and cultures (e.g., Costa & McCrae, 1992; Costa et al., 2019). Recent studies also pointed to the added value of investigating the 30 FFM facets (e.g., Anglim, & Grant, 2014).

While the FFM has been extensively studied, psychological research on character is comparably scarce. One of the broadly studied conceptualizations of character is the VIA-CSV classification. Peterson and Seligman (2004) analyzed the broad literature on morally evaluated personality characteristics and suggested a classification of 24 character strengths and six core virtues (VIA-CSV). The character strengths are conceptualized to be inherently morally valued, universal, trait-like, and to influence behaviors, thoughts and feelings, among other criteria. The character strengths are grouped under six universal core virtues (wisdom and knowledge, courage, humanity, justice, temperance, and transcendence) and are seen as distinct ways to express each virtue. When factor-analyzing the 24 character strengths scales, usually three to five high-order factors are found (for an overview, see McGrath, 2014). For both simplicity and consistency, we use the term "personality" to denote the FFM as measured by the NEO-PI-R, and we use the term "character" for the VIA-CSV.

**The Overlap between Personality and Character**

If Allport's assertion (1927) that character is personality evaluated applies, we would expect to find both an overlap between character strengths (e.g., the VIA-CSV) and personality traits (e.g., the NEO-PI-R variant of the FFM) as well as a gap due to the evaluative nature of the character terms. To date, four empirical studies supported these notions using the NEO-PI-R domains and facets and the VIA-CSV scales and factors (Dametto & Noronha, 2021; Macdonald et al., 2008; McGrath et al., 2020; Noftle et al., 2011). Employing multiple regression analyses, the FFM traits predicted between 3% and 59% in the individual VIA-CSV factors (Macdonald et al., 2008). Noftle et al. (2011) found that the FFM domains explained on average 33% variance in the 24 character strengths (range 14-46%), and the FFM facets explained on average 40% variance in the 24 character strengths

(range 30-50%). In the most extensive investigation to date, McGrath et al. (2020) found a mean explained variance of the FFM facets in the character strengths from 42-48%. Recently, Dametto and Noronha (2021) found predictions by the FFM domains in the character strengths ranging from 9-34% in adolescents. Overall, these studies found on average that the FFM domains and facets could predict around 30-40% variance in the VIA-CSV scales and factors.

**Aims of the Study**

The aims of the present study are to further explore the relationship between personality and character. Our study first seeks to replicate the previous findings on the overlap of character strengths and FFM domains and facets (Dametto, & Noronha, 2021; Macdonald et al., 2008; McGrath et al., 2020; Noftle et al., 2011). Second, as past research relied on self-reports, our study explores the overlap between personality and character in peer-reports. Third, we employed for the first time the standard measures for character (the VIA-IS) and for personality (NEO-PI-R) in the same sample. Fourth, we look both at how personality predicts character (in line with previous studies), but also at how well character can predict personality.

A fifth aspect to be considered when evaluating the correlations between character and personality traits is the level of abstraction. We seek to extend the previous findings by systematically comparing the more abstract higher-order constructs (3-5 VIA-CSV factors and 5 FFM domains) and the more specific lower-order constructs (24 VIA-CSV scales and 30 FFM facets). Thus, we consider both comparisons at different levels and with different methods to determine the overlap between personality and character in more detail and more comprehensively than previous studies did.

## Method

### Participants

Initially, a convenience sample of 163 participants from a large industrial city in Germany recruited via personal contacts completed the self-reports. Four participants who indicated to be <18 years were excluded from the analysis. Every participant was asked to invite a family member, a friend, or another close person to complete the peer-report. A total of 160 participants completed the peer-reports. Three participants who indicated to be <18 years were excluded from the analysis. Also, only participants were retained who provided both self-reports and peer-reports, resulting in a final sample of 152 participants.

The mean age of the participants who completed the self-reports was 33.06 years (*SD*=10.37) and ranged from 18-66 years. The gender ratio was relative balanced (59% female, 41% male). Most (63%) of the participants were employees and 20% were university students. The sample was rather well-educated: 35% of the participants had a university entrance qualification and 28% had a university degree.

The gender ratio of the participants who completed the peer-reports was 41% males and 59% females. The mean age of the sample was 33.67 years (*SD*=10.33), and ranged from 18-61 years. The peer-raters were also well-educated: 34% had a university entrance qualification and 24% participants had a university degree. Most (67%) were employees and 19% were university students. Most of the peer-reports were completed by a significant other, like the spouse (32%), partner (24%), or boyfriend/girlfriend (26%). The peers knew the study participants between 4 months and 50 years (*M*=12.08 years, *SD*=11.58 years) and rather well (*M*=8.30, *SD*=0.71, range 7-9 on a 9-point Likert scale from 1-*very little* to 9-*very good*).

### Instruments

Character strengths were assessed with the German self- and peer-report version (Ruch et al., 2010) of the VIA-IS (Peterson et al., 2005). The VIA-IS is a 240-item measure, which consists of 24 character strength scales with 10 items each (scale overview in

Supplementary Tables S1-S2). The response scale is a 5-point Likert-scale from 1-*very much unlike me* to 5-*very much like me*.

To assess the personality traits of the FFM, we used the German self- and peer-report version (Ostendorf & Angleitner, 2004) of the NEO-PI-R (Costa & McCrae, 1992). The NEO-PI-R is the standard inventory to assess the FFM and its facets (six per factor; scale overview in Supplementary Tables S3-S4). The NEO-PI-R consists of 240 items, with 48 items for each personality factor (and 8 items for each facet).

**Procedure**

All participants completed the questionnaires in paper-pencil surveys, which they received via mail or personally from the researchers. All participants provided written informed consent, and the study was conducted in line with the local ethical guidelines. As reimbursement, participants received personal feedback on their results. Participants who were psychology students also received course credits for their participation. The NEO-PI-R was presented first, followed by VIA-IS. The peers were invited to complete the ratings of one person who also submitted self-reports.

**Statistical Analyses**

The data was analyzed with IBM® SPSS® (25.0.0.1). To compute the five NEO-PI-R and five VIA-IS factors, two principal component analyses with varimax factor rotation were conducted, in line with previous research (Ruch et al., 2010). The 30 NEO-PI-R facets and the 24 VIA-IS scales resulted in five components each, and the factor scores for each of these five extracted components were saved and used in the analyses (factor solutions and self-peer congruences are shown in Supplementary Tables S5-S6). The reliabilities of the VIA-IS factors were computed on the basis of the strengths with the highest loadings on each factor. The reliabilities of the NEO-PI-R factors were computed on the basis of the six facets corresponding to the each of the factors.

Standard multiple regression analyses were conducted separately for the self- and peer-reports. The resulting $R^2$ values were then compared to Cronbach's alpha as the lower bound of reliability. To support the distinction between character and personality, $R^2$ (i.e., the overlap, or the amount of variance explained by the predictors) should be lower than Cronbach's alpha (i.e., lowest amount of true variance in the scale). Additionally, the multitrait-multimethod (MTMM) correlation matrices between the VIA-IS scales and factors and the NEO-PI-R facets and factors, respectively, were computed. Convergent validity is indicated by self-peer convergence (i.e., correlation between the same scale in self- and peer-reports) of at least .30, indicating a large effect (Gignac & Szodorai, 2016). We computed discriminant validity as a median over absolute values of all self-peer correlations with the facets/scales/factors across the two methods. Discriminant validity is indicated by self-peer convergence being greater than the correlations with the other facets/scales/factors across the two methods (see Campbell & Fiske, 1959).

## Results

Descriptive statistics of the study variables are shown in Supplementary Tables S1–S4. Table 1 shows the overlap of the NEO-PI-R facets and factors with the VIA scales and factors. The overlap was very large with the 24 VIA-IS scales (*Mdn*=56% in self-reports and *Mdn*=58% in peer-reports) and medium to large with the 5 VIA-IS factors (*Mdn*=35% in self-reports and *Mdn*=42% in peer-reports). The median proportion of the true-score variance in NEO-PI-R facets accounted for by the VIA-IS scales was 75% (range 37–100%) for self-reports and 72% (range 49–100%) for peer-reports. A similar pattern occurred for the NEO-PI-R factors. The proportion of the explained true-score variance was always larger on the lower level than on the higher level of abstraction. The median proportion of the true-score variance in VIA-IS scales accounted for by NEO-PI-R facets was 77% (range 43–93%) for self-reports and 79% (range 45–94%) for peer-reports.

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Similar patterns were found for the VIA-IS factors (for details, see Supplementary Tables S7–S8). Importantly, the VIA-IS factors and scales explained less than the true-score variance; hence, character was not sufficient to explain the variability in personality. Exceptions were only found for three facets, namely N5:Impulsiveness (self-reports), O6:Values (peer-reports), and C1:Competence (peer-reports). Supplementary Tables S7–S8 further contain the correlations between each NEO-PI-R facet and factor and the VIA-IS scales and factors. N5:Impulsiveness showed large negative correlations with the strengths of prudence and self-regulation, O6:Values correlated positively with fairness and leadership, and C1:Competence correlated strongly and positively with judgment, perspective, and perseverance. As the VIA-strengths are based on emotional stability (Peterson & Seligman, 2004), the scales and factors showed strong negative relationships with neuroticism and its facets. Investigating the multitrait-multimethod matrix, convergent validity (range .33–.67) was supported for all NEO-PI-R facets and factors. Importantly, self-peer convergence was always higher than the corresponding correlations with the VIA-IS scales and factors, supporting discriminant validity for all NEO-PI-R scores.

Table 1

*Cronbach's alpha and $R^2$ between the NEO-PI-R facets and factors and the VIA-IS scales and factors in Self- and Peer-Reports, and Convergent and Discriminant Correlations across Self- and Peer-Reports*

| | Self-reports | | | Peer-reports | | | Self×peer-reports | | |
|---|---|---|---|---|---|---|---|---|---|
| | Alpha | VIA scales | VIA factors | Alpha | VIA scales | VIA factors | Conver- gence | VIA scales | VIA factors |
| **NEO-PI-R facets** | | | | | | | | | |
| N1:Anxiety | .85 | .56 | .31 | .82 | .59 | .27 | .58 | .38 | .30 |
| N2:Angry hostility | .71 | .34 | .16 | .79 | .56 | .38 | .42 | .29 | .23 |
| N3:Depression | .87 | .58 | .26 | .86 | .52 | .26 | .59 | .45 | .35 |
| N4:Self-consciousness | .79 | .45 | .22 | .78 | .55 | .25 | .55 | .37 | .34 |
| N5:Impulsiveness | .62 | .64 | .44 | .63 | .50 | .30 | .40 | .30 | .30 |
| N6:Vulnerability | .79 | .59 | .37 | .83 | .66 | .48 | .52 | .41 | .33 |
| E1:Warmth | .76 | .58 | .46 | .80 | .58 | .45 | .63 | .42 | .42 |
| E2:Gregariousness | .79 | .29 | .17 | .82 | .45 | .25 | .61 | .38 | .45 |
| E3:Assertiveness | .84 | .64 | .42 | .85 | .64 | .48 | .65 | .40 | .40 |
| E4:Activity | .68 | .48 | .20 | .76 | .53 | .40 | .51 | .36 | .41 |
| E5:Excitement-seeking | .57 | .25 | .11 | .63 | .31 | .20 | .65 | .25 | .23 |
| E6:Positive emotions | .79 | .59 | .44 | .81 | .56 | .50 | .62 | .52 | .52 |
| O1:Fantasy | .81 | .55 | .28 | .82 | .52 | .32 | .46 | .36 | .33 |
| O2:Aesthetics | .78 | .56 | .35 | .79 | .67 | .45 | .59 | .54 | .45 |
| O3:Feelings | .74 | .55 | .31 | .76 | .64 | .41 | .48 | .44 | .35 |
| O4:Actions | .58 | .44 | .28 | .64 | .37 | .25 | .51 | .28 | .28 |
| O5:Ideas | .80 | .56 | .38 | .83 | .67 | .58 | .64 | .48 | .49 |
| O6:Values | .47 | .44 | .19 | .45 | .45 | .25 | .39 | .26 | .25 |
| A1:Trust | .82 | .45 | .28 | .86 | .56 | .42 | .49 | .42 | .46 |
| A2:Straightforwardness | .73 | .56 | .41 | .74 | .53 | .42 | .52 | .41 | .41 |
| A3:Altruism | .69 | .55 | .42 | .71 | .62 | .56 | .56 | .42 | .42 |
| A4:Compliance | .65 | .56 | .34 | .79 | .66 | .52 | .61 | .41 | .46 |
| A5:Modesty | .77 | .59 | .45 | .74 | .56 | .38 | .44 | .41 | .32 |
| A6:Tender-mindedness | .67 | .48 | .26 | .71 | .48 | .28 | .50 | .37 | .38 |
| C1:Competence | .58 | .50 | .37 | .62 | .69 | .55 | .47 | .36 | .29 |
| C2:Order | .68 | .40 | .19 | .72 | .38 | .20 | .67 | .32 | .31 |
| C3:Dutifulness | .62 | .52 | .35 | .67 | .59 | .42 | .33 | .30 | .30 |
| C4:Achievement-striving | .73 | .66 | .27 | .68 | .45 | .32 | .53 | .47 | .37 |
| C5:Self-discipline | .80 | .62 | .36 | .83 | .71 | .50 | .45 | .42 | .44 |
| C6:Deliberation | .77 | .59 | .48 | .79 | .72 | .52 | .47 | .47 | .41 |
| **NEO-PI-R factors** | | | | | | | | | |
| Neuroticism | .85 | .64 | .38 | .85 | .71 | .37 | .61 | .40 | .35 |
| Extraversion | .69 | .64 | .48 | .80 | .66 | .53 | .67 | .41 | .52 |
| Openness to experience | .71 | .64 | .38 | .76 | .74 | .59 | .62 | .48 | .38 |
| Agreeableness | .75 | .69 | .55 | .82 | .74 | .69 | .67 | .45 | .50 |
| Conscientiousness | .79 | .74 | .50 | .80 | .74 | .53 | .57 | .45 | .44 |

*Notes.* $N = 152$.

Table 2 shows the overlap of the VIA-IS scales and factors with the NEO-PI-R facets and factors. The overlap was again very large with the 30 NEO-PI-R facets (*Mdn*=58% in self-reports and *Mdn*=64% in peer-reports) and medium to large with the 5 VIA-IS factors (*Mdn*=37% in self-reports and *Mdn*=45% in peer-reports). For all VIA-IS scales and factors, the NEO-PI-R explained less than the true-score variance; that is, personality was not sufficient to explain the variability in character. The lowest overlaps were found for the character strength spirituality and other theological strengths, which were not well captured by the NEO-PI-R. We also computed adjusted $R^2$ values (supplementary Tables S7-S8), yielding very similar results.

Investigating the multitrait-multimethod matrix (for details, see Supplementary Tables S9-S12), the self-peer convergence was always higher than .30, except for perspective (.29), honesty (.26), and leadership (.29), generally supporting convergent validity. In contrast to the NEO-PI-R findings, self-peer convergence of the VIA-IS scores was not always higher than the corresponding correlations with NEO-PI-R facets or factors. This affected 8 of the 24 VIA-IS scales (perspective, honesty, social intelligence, teamwork, fairness, leadership, forgiveness, and humility) and 4 of the 5 VIA-IS factors (all except for theological strengths). Thus, discriminant validity was supported for two-thirds of the VIA-IS-scales, but for only one VIA-IS factor.

Table 2

*Cronbach's alpha and $R^2$ between the VIA-IS scales and factors and the NEO-PI-R facets and factors in Self- and Peer-Reports, and Convergent and Discriminant Correlations across Self- and Peer-Reports*

| | Self-reports | | | Peer-reports | | | Self×peer-reports | | |
|---|---|---|---|---|---|---|---|---|---|
| | Alpha | NEO facets | NEO factors | Alpha | NEO facets | NEO factors | Convergence | NEO facets | NEO factors |
| **VIA-IS scales** | | | | | | | | | |
| Creativity | .83 | .53 | .44 | .84 | .50 | .40 | .49 | .34 | .36 |
| Curiosity | .74 | .52 | .32 | .78 | .72 | .58 | .41 | .36 | .32 |
| Judgment | .81 | .66 | .38 | .84 | .74 | .50 | .48 | .43 | .26 |
| Love of learning | .80 | .48 | .25 | .85 | .69 | .55 | .58 | .48 | .40 |
| Perspective | .71 | .48 | .28 | .77 | .55 | .40 | .29 | .36 | .30 |
| Bravery | .70 | .50 | .32 | .75 | .49 | .26 | .44 | .39 | .33 |
| Perseverance | .83 | .71 | .56 | .85 | .69 | .53 | .50 | .47 | .45 |
| Honesty | .69 | .58 | .41 | .70 | .56 | .36 | .26 | .33 | .34 |
| Zest | .71 | .61 | .50 | .72 | .66 | .48 | .42 | .41 | .41 |
| Love | .66 | .36 | .18 | .74 | .50 | .20 | .40 | .38 | .28 |
| Kindness | .71 | .48 | .29 | .76 | .59 | .48 | .49 | .42 | .34 |
| Social intelligence | .70 | .56 | .32 | .75 | .58 | .42 | .34 | .41 | .36 |
| Teamwork | .76 | .50 | .31 | .74 | .49 | .41 | .39 | .42 | .33 |
| Fairness | .77 | .61 | .45 | .82 | .66 | .59 | .40 | .41 | .45 |
| Leadership | .68 | .49 | .32 | .82 | .55 | .35 | .29 | .31 | .24 |
| Forgiveness | .78 | .59 | .42 | .83 | .66 | .52 | .40 | .42 | .43 |
| Humility | .75 | .69 | .40 | .79 | .62 | .45 | .40 | .41 | .37 |
| Prudence | .74 | .69 | .58 | .71 | .67 | .56 | .52 | .47 | .39 |
| Self-regulation | .72 | .62 | .37 | .75 | .64 | .48 | .41 | .36 | .31 |
| Appreciation | .73 | .62 | .48 | .81 | .64 | .46 | .59 | .54 | .48 |
| Gratitude | .75 | .49 | .34 | .79 | .50 | .30 | .48 | .40 | .28 |
| Hope | .71 | .53 | .36 | .80 | .64 | .44 | .46 | .45 | .40 |
| Humor | .84 | .66 | .31 | .88 | .62 | .45 | .52 | .52 | .35 |
| Spirituality | .89 | .38 | .13 | .89 | .40 | .12 | .77 | .31 | .26 |
| **VIA-IS factors** | | | | | | | | | |
| Restraint | .80 | .72 | .62 | .81 | .72 | .62 | .43 | .44 | .44 |
| Emotional | .84 | .66 | .38 | .86 | .74 | .62 | .49 | .52 | .52 |
| Interpersonal | .83 | .64 | .46 | .82 | .76 | .64 | .37 | .46 | .50 |
| Intellectual | .75 | .67 | .49 | .83 | .76 | .59 | .46 | .49 | .38 |
| Theological | .68 | .52 | .31 | .74 | .56 | .25 | .62 | .45 | .34 |

*Notes. N* = 152; Appreciation = appreciation of beauty and excellence

**Discussion**

The aim of the present study was to replicate previous findings on the relationship between personality and character and to extend them to novel methods (peer-reports), instruments (VIA-IS and NEO-PI-R) and levels of analysis (facets/scales and factors/domains). First, the previously found large predictions of the character strengths by the FFM personality domains and facets (Dametto, & Noronha, 2021; Macdonald et al., 2008; McGrath et al., 2020; Noftle et al., 2011) were replicated in both self- and peer-reports. The overlap was notably larger when the facets/scales were used as predictors than when the domains/factors were employed. This supports the incremental validity of lower-level, specific constructs (e.g., Anglim & Grant, 2014), even when the outcomes to be predicted were more abstract in nature (i.e., domains/factors). Personality explained approximately as much variance in character as character did explain in personality. Hence, the overlap between the two standard inventories was mutual, and both seem to assess relevant variance for each domain of personality and character.

Despite the large overlap between the NEO-PI-R and VIA-IS, they could be empirically distinguished, with the exception of three personality facets. N5:Impulsiveness and C1:Competence shared large amounts of variance (64% and 69%, respectively) with the VIA-IS scales, indicating that these facets were saturated with character-relevant variance. For N5:Impulsiveness, these were mostly related to the temperance strengths (prudence and self-regulation), and for C1:Competence mostly related to wisdom strengths (judgment, perspective) and perseverance. For the third facet, O6:Values, the overlap with character was comparably smaller (45%). However, this facet's reliability was very low (.47 in self- and .45 in peer-reports), indicating more a measurement issue than high saturation by character. None of the VIA-IS scales and factors was sufficiently explained by either the NEO-PI-R facets or domains, indicating that they captured surplus variance that went beyond devaluated personality.

The MTMM analyses supported the convergent and discriminant validity of all NEO-PI-R facet and domain scores in comparison to the VIA-IS across self- and peer-reports. By contrast, convergent validity was low for three VIA-IS scales (perspective, honesty, and leadership), which is in line with the findings by Ruch et al. (2010). Discriminant validity was not supported for eight VIA-IS scales, of which most belonged to interpersonal strengths. They related more strongly to agreeableness (facets and domain) than to their corresponding score, and hence seem to represent a positively evaluated version of agreeableness. Furthermore, four of five VIA-IS factors lacked discriminant validity to the NEO-PI-R facets, and three also to the NEO-PI-R domains. This indicates that character and personality were insufficiently distinguished when comparing people's introspective judgements (self-reports) and other people's perception of their related behavior. This suggests that the VIA factors—except for theological strengths—and interpersonal strengths seem somewhat redundant with personality when compared across self- and peer-reports. Although the present study cannot uncover the nature of these findings, the self-other knowledge asymmetry model (Vazire, 2010) suggests that observability and evaluativeness could be relevant aspects that contribute to the lower construct validity of the VIA-IS in the MTMM analyses. Future studies could investigate which cues people use to judge character in others and who might be best at judging character, as has been done for personality traits (e.g., Borkenau et al., 2004).

The primary impact of the present work is a more comprehensive study of the overlap between personality and character. Taken together, the results generally supported that personality and character are distinct, although largely overlapping constructs. The highest overlaps and some redundancies were found when using the lowest levels of abstraction (i.e., scales and facets) as predictors and for interpersonal strengths, which consist of kindness, teamwork, fairness, leadership, forgiveness, and humility (which strongly overlapped with agreeableness). Also, most VIA-IS factors lacked discriminant validity with personality, showing that the surplus variance that can be explained by character is located at the lower

level of character strengths, which should be used as the preferred level of analysis in research and applications. Overall, the partial overlap between character and personality goes against Allport's (1927) strict differentiation and shows that personality is more than character devaluated, and character is more than personality evaluated. This finding also resonates with Allport's later, more unifying approaches to traits that can include ethical ideals (Allport & Odbert, 1936, p. 28).

**Limitations and Implications for Future Research and Applications**

Some limitations of the current study are related to the rather small sample size. Hence, we could only use observed variables, and future studies should explore the relationship between personality and character using larger samples that allow applying latent analyses. Encouragingly, McGrath et al. (2020) found similar results for both observed and latent analyses. Further, for more precise effect size estimation, larger sample sizes are recommended (Schönbrodt & Perugini, 2013); for example, the few instances in which Cronbach`s alpha was lower than $R^2$ could in part be due to the small sample and associated sampling error. Related to this, we used Cronbach`s alpha, which could underestimate reliability substantially. Future studies could adopt other reliability indicators, such as test-retest reliability or McDonald`s omega.

Another limitation is that we did not explore the criterion and incremental validity of the constructs. Thus, it is unclear how the observed differences, or the "gap" between personality and character, would impact the nomological network of both personality and character. Previous studies suggested that character strengths can incrementally predict certain outcomes beyond the FFM traits and facets (McGrath et al., 2020; Noftle et al., 2011). Nevertheless, a more comprehensive analysis of how personality and character can predict positive and moral outcomes (in line with the conceptualization of character strengths) is yet missing and should be undertaken in future research. Furthermore, a more comprehensive

study with multiple operationalizations of personality and character would be desirable to determine whether the overlap *between* the constructs is lower than *within* each construct.

Another limitation is the specificity of the sample, as we used personal contacts for recruitment. Further, we only employed one peer-report for each target. This might have contributed to lower self-peer convergence, distorting the interpretation of both convergent and discriminant validity. Ideally, future studies would collect three peer-reports for each target to yield a better convergence and to allow for more sophisticated analyses of MTMM data, such as combining multilevel modeling and confirmatory factor analyses (e.g., Carretero-Dios et al., 2011). Lastly, the order of questionnaires was not randomized, leading to potential order effects when answering the items.

While our investigation focused on the empirical relationships between personality and character, a recent study supported our findings from a conceptual and content-analysis perspective (Aluri & Li, 2022). Future research could adopt an interdisciplinary approach for a broader examination of the association between personality and character.

**Conclusions**

The aim of the present study was to comprehensively examine the relationship between character (i.e., the 24 VIA-IS strengths) and personality (i.e., the 30 facets and 5 domains of the NEO-PI-R). Previous results on the overlap between character and personality were replicated and extended by analyzing self- and peer-reports. The results supported the assumption that personality and character, although strongly related, are two distinct constructs, and could hence be described as 'close relatives'. Overall, the study of both 'neutral' and positively valued personality traits is needed to broaden our knowledge on individual differences.

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