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Character strengths in children and adolescents

Ruch, Willibald ; Weber, Marco ; Park, Nansook ; Peterson, Christopher

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Character Strengths in Children and Adolescents: Reliability and Initial Validity of the
German Values in Action Inventory of Strengths for Youth (German VIA-Youth)

Willibald Ruch and Marco Weber

University of Zurich, Switzerland

Nansook Park and Christopher Peterson

University of Michigan, USA

Author Notes

Willibald Ruch, Department of Psychology, University of Zurich, Switzerland; Marco Weber, Department of Psychology, University of Zurich, Switzerland; Nansook Park, Department of Psychology, University of Michigan, USA; Christopher Peterson, Department of Psychology, University of Michigan, USA.

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Address correspondence to Willibald Ruch, Section on Personality and Assessment, Department of Psychology, University of Zurich, Binzmuehlestrasse 14/7, 8050 Zurich, Switzerland, E-mail: w.ruch@psychologie.uzh.ch, Phone: +41 44 635 7520, Fax: +41 44 635 7529

Abstract

The Values in Action Inventory of Strengths for Youth (VIA-Youth) is a self-report inventory assessing 24 character strengths among people between 10 and 17 years of age. The present paper describes the adaptation and initial validation of a German version of this measure utilizing several samples (in total $N = 2,110$ self-reports of participants aged 10-17 years, 56.5% girls; $N = 219$ parent-reports) from Germany and Switzerland. The 24 scales yielded high reliability and exhibited stability across four months. Self-reports and parent-ratings of strengths converged well. An oblique five-factor solution was found to represent the data well. There were small age effects, and small to medium gender effects (e.g., girls scored higher on beauty and kindness). Character strengths of hope, gratitude, love, and zest correlated positively with global life satisfaction. Furthermore, most of the strengths were strong predictors of general self-efficacy. Overall, the German VIA-Youth demonstrated good psychometric properties and promising evidence for validity. The German VIA-Youth is recommended for the assessment of character strengths in German-speaking children and adolescents.

Keywords: character strengths, positive psychology, VIA-Youth, children, adolescents

Character Strengths in Children and Adolescents: Reliability and Initial Validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth)

Positive psychology and positive youth development focus on factors that enable children and adolescents to grow and flourish (Park, 2004). One factor is *good character*. Peterson and Seligman (2004) introduced the Values in Action (VIA) classification of the good character in terms of six universal virtues and 24 character strengths. The virtues proposed are wisdom and knowledge, courage, humanity, justice, temperance, and transcendence and were identified in various writings by philosophers and spiritual leaders in China, South Asia, and the West (Peterson & Seligman, 2004). Twenty-four character strengths – defined as the processes and mechanisms that lead to or exemplify the virtues were found that fulfilled the proposed criteria that a positive, morally valued characteristic had to satisfied to be included as a character strength (e.g., it is fulfilling; it is morally valued in its own right; its display does not diminish other people; it should be trait-like; and so on; Peterson & Seligman, 2004). Table 1 summarizes the VIA classification.

Insert Table 1 about here

Table 1 shows that each of the six core virtues is constituted by three to five character strengths. The assignment of the strengths to the virtue categories was done on theoretical grounds as opposed to empirically.

Character strengths in young people. When investigating character strengths in young people (ages 10-17), one has to answer at least two questions: (1) Are character strengths observable and distinguishable already in young people? (2) Is there an adequate measurement for the assessment of character strengths for these age groups?

To answer the first question: Park and Peterson (2006a) asked US parents for written descriptions of their children (aged 3-9). They found that the descriptions were rich in character language terminology, with the most prevalent strengths mentioned being love

(56%), kindness (38%), creativity (34%), and humor (26%). The less prevalent strengths were gratitude, modesty, forgiveness, open-mindedness, hope, appreciation of beauty (all 2%), and honesty (1%). Furthermore, mention of the character strengths of love, zest, and hope correlated with happiness of the children. Moreover, Steen, Kachorek, and Peterson (2003) discussed with more than four hundred and fifty students (aged 14-19) from different US high schools the character strengths included in the VIA classification. They were interested in whether the strengths generally make sense to adolescents, if they typically recognize strengths in their environments, if they can identify the ownership of several strengths, and what they think about the origins and development of strengths. Results showed "...that students conceptualized the strengths as existing along continua, with people exhibiting different traits to varying degrees. Although students believed that some people naturally possess more or less of a given strength, they also believed that all of them could be learned or developed" (Steen et al., 2003, p. 10).

To answer the second question: Over a three-year period, Park and Peterson (2006b) developed an inventory for young people accounting for several aspects it should fulfill. They wrote age-appropriate items (i.e., simple language, without idioms or metaphors) and tested out different item formats and phrasings representing all 24 character strengths (Peterson & Seligman, 2004). Furthermore, contexts that are important for children and adolescents were chosen for the item contents (e.g., school, family, and friends). The current inventory contains 198 items (7–9 items for each scale) using a 5-point scale from *very much like me* to *not like me at all*. The *Values in Action Inventory of Strengths for Youth (VIA-Youth; Park & Peterson, 2006b)* does not measure virtues by summing up the strengths theoretically assigned to a virtue to a virtue-total-score but measures 24 character strengths by averaging the items (7-9) for each scale. About one-third of the items are reverse-scored. In average it takes 45 minutes to complete the VIA-Youth. During this construction process they used the advice from teachers, developmental psychologists, and empirical evidence from earlier

versions. For that, the VIA-Youth is a self-report questionnaire for the comprehensive assessment of the 24 character strengths among children and adolescents, aged 10–17.

Park and Peterson (2006b) presented results from different US samples. They found alpha coefficients $> .70$ for all 24 scales. Six-month test-retest correlations ranged between .46 (teamwork) and .71 (religiousness) and showed a median of .58 across the 24 scales suggesting stability. They reported that most subscale scores were skewed but still had acceptable variability. Furthermore, analyses of demographics showed small to medium effect sizes for both gender and age effects. Girls scored somewhat higher than boys for beauty, fairness, kindness, and perspective, and that fifth graders scored higher than eighth graders for most of the scales (Park & Peterson, 2006b). The English language VIA-Youth (in former and in its current form) was used in several validation studies so far. For example, Park and Peterson (2006b) found positive relationships between character strengths and popularity and social skills. Furthermore, they reported negative correlations between character strengths and both internalized as well as externalized problem behavior. Van Eeden, Wissing, Dreyer, Park, and Peterson (2008) reported for a sample of South African learners positive correlations between character strengths and both ego-resilience as well as health. These authors also investigated positive affect (PA) and negative affect (NA) in relation to character strengths, and found positive correlations between character strengths and PA, and negative correlations between character strengths and NA. Both Park and Peterson (2006b) as well as Van Eeden et al. (2008) reported positive relationships between character strengths and global life satisfaction. However, interestingly, compared to results on these associations in adult samples (e.g., Peterson, Ruch, Beermann, Park, & Seligman, 2007) only love, hope, zest, and gratitude, but not curiosity, were among the most potent predictors.

Aims of the present study. The present paper describes the steps in the adaptation of the VIA-Youth to German language, and the validation of the German VIA-Youth, which

further on will allow for the assessment of character strengths in German-speaking 10-17 year-olds. First, the results of the adaptation of the VIA-Youth (Park & Peterson, 2006b) will be evaluated with respect to psychometric characteristics (e.g., M , SD , internal consistency, item-total-correlation), and effects of age and gender. Second, as the structure of the VIA-Youth was developed theoretically, but not through factor analysis the empirical structure of the German VIA-Youth is of interest. As Gillham et al. (2011) recently came up with a five-factor solution it should be tested if this solution is replicable in German-speaking samples as well. Third, a parent-rating form will be generated. This form will be used to examine the convergent validity of the German VIA-Youth allowing the estimation of the amount of reporting bias. Also, this form will be used to see whether gender differences generalize across raters. Fourth, the stability of character strengths over a time period of four months will be investigated in terms of rank-order stability. The fifth aim is to examine the claim of Peterson and Seligman (2004) that strengths should contribute to "... various fulfillments that constitute the good life" (p. 17) and that exercising strengths enhances the likelihood of positive outcomes (e.g., subjective well-being). This will be done by attempting to replicate the findings for the US VIA-Youth (e.g., Park & Peterson, 2006b) in regard to positive relationships between character strengths and life satisfaction, and with zest, love, gratitude, and hope showing the numerically highest correlation coefficients. Finally, the sixth aim was to investigate the relationship between character strengths and self-efficacy. The concept of self-efficacy is defined as „peoples' beliefs in their capabilities to produce desired effects by their own actions“ (Bandura, 1997, p. vii). As character strengths are enabling conditions that facilitate children and adolescents thriving (Park, 2004) we predict that participants that generally score higher in character strengths will report higher levels of self-efficacy. For two strengths, optimism and self-regulation, a positive relationship with self-efficacy has already been reported (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005).

Method

Participants

Sample 1 consisted of 1,569 German-speaking children and adolescents (58.5% girls). Their mean age was 14.26 years ($SD = 1.75$; ranging from 10-17 years). About half of them (54.0%) attended highest level secondary school (e.g., needed for higher education like university), 39.3% attended medium level secondary school (e.g., normal learning tempo, needed for a demanding apprenticeship), and 6.7% attended other educational institutions (e.g., primary school, lowest level secondary school [i.e., reduced learning tempo, needed, for a less demanding apprenticeship as, e.g., manufacturer or in the industrial sector], apprenticeship).

For stability and validity analyses three further samples (*samples 2 to 4*) were used. *Sample 2* (self-reports; target persons) consisted of $N = 294$ Swiss participants attending secondary school (highest education level). Their mean age was 13.49 years ($SD = 1.04$) and ranged from 11 to 17 years. About half (51.0%) were male. *Sample 3* (parent sample) consisted of $N = 219$ parents of the participants of sample 2. Their mean age was 44.59 years ($SD = 4.28$; range 36-65 years) and 75.23% were female (mothers).

Sample 4 (self-reports) consisted of $N = 247$ Swiss participants. Their mean age was 11.77 years ($SD = 0.65$; age ranged from 10 to 14 years); and 53.4% were female. About half of them (78.9%) attended secondary school (highest education level), 12.2% attended secondary school (medium education level), and 8.9% attended secondary school (lowest education level).

All participants took part in the studies voluntarily. Additionally, all participants younger than 18 years provided the permission of their parents or legal guardians. None of the participants was paid for their service.

Instruments

The *Values in Action Inventory of Strengths for Youth (VIA-Youth*; Park & Peterson, 2006b) consists of 198 items for the self-assessment of the 24 character strengths (7-9 items

per strength) included in the classification of Peterson and Seligman (2004). About one third of the items are reverse coded. The VIA-Youth uses a 5-point Likert-style format (from 1 = *not like me at all* to 5 = *very much like me*). A sample item is “I believe that things will always work out no matter how difficult they seem now” (hope).

The *parent-rating form of the VIA-Youth* is identical to the VIA-Youth but all items were rephrased for others-evaluations. A sample item is “He/She believes that things will always work out no matter how difficult they seem now” (hope). The same answer format is used only with rephrased categories (e.g., 5 = *very much like him/her*). The scales of the parent form of the German VIA-Youth showed satisfactory internal consistencies (median was = .80).

The *Students' Life Satisfaction Scale (SLSS; Huebner, 1991)* adapted to German by Weber, Ruch, and Huebner (in press) is a seven-item self-report measure of satisfaction with life (as a global cognitive judgment of adolescents life). Two of the items are reverse coded. It uses a 6-point answer format (from 1 = *strongly disagree* to 6 = *strongly agree*). A sample item is “I have what I want in life“. The SLSS has been shown to be, in several studies across cultures, a reliable and valid measurement (e.g., Huebner, 1991; Weber et al., in press). The internal consistency (alpha coefficient) the present study was .88.

The *General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1999)* consists of 10 items using a 4-point Likert-style format (from 1 = *strongly disagree* to 4 = *strongly agree*). A sample item is “I can always manage to solve difficult problems if I try hard enough.” The GSE had a high internal consistency in the present research ($\alpha = .89$), and it has shown good psychometric properties across different studies (e.g., Luszczynska et al., 2005).

Procedure

The adaptation of the VIA-Youth. Three psychologists (all German native speakers) with good knowledge of English translated the original US-version of the VIA-Youth into German. These translations were compared and discussed within this group. In several steps a

first final version was compiled. A bilingual person familiar with the translation of psychological texts back translated this version to English. The authors of the American version provided feedback on this back translation. According to their comments, the translation was checked again, and some minor revisions were made. An initial version of the German VIA-Youth was then examined on an item by item level as described below in more detail.

Data collection. The data for sample 1 were collected in schools in German-speaking parts of Switzerland and in Germany. An informed instructor introduced all participants directly in the classrooms, where students predominantly filled in the questionnaires. In some cases participants filled in the material at home. All participants received individualized feedback on their character strengths and additional information on the meaning of each of the strengths. Data on test-retest reliability, and data on convergent validity (samples 2 and 3) were collected in one study. The target persons filled in the material twice within the period of four month and were instructed to collect one parent rating at the second testing time. They provided their parents with the set of questionnaires, a self-addressed envelope, and a sheet with standardized instructions. The instructions stated not to complete the questionnaire in the presence of the target person and after completion seal it in the envelope and send it back to the department. Data on life satisfaction, and general self-efficacy were collected in three different schools in Switzerland (sample 4). Participants filled in the set of questionnaires in the classroom setting supervised by the instructed teacher.

Results

Initial analyses

Initial item analyses with a smaller sample suggested the revision of a total of 9 of 198 items. Four items showed corrected item-total correlations (CITC) below .20, two items showed – compared to the other items of their scale – lower CITCs, and three showed higher correlations to other scales. All 9 items were rephrased with the aim to sharpen their

prototypicality for the scale. Upon retesting the revised items showed an average increase in CITCs of .11. The four items with CITCs below .20 showed an increase ranging from .11 to .31. Furthermore, experiences with classroom testing under time restrictions showed that some students overlooked the negation in the negatively keyed items. This problem was reduced by highlighting (i.e., italicizing) the negation (e.g., “I am *not* often that excited about things.”). Analyses showed an average increase of .01 in CITCs for these items. Analyzing this revised version, all alpha coefficients were at least .65 and showed averaged CITCs of .47. This revised version provided the base for the results reported in this paper. Because 24 different character strengths were investigated, a corrected level of significance (i.e., $.05/24 = .002$) was used when interpreting the results.

Descriptive results and reliability

Means, standard deviations, skewness, kurtosis, minima, maxima, internal consistencies and means of corrected item-total correlations for each of the 24 VIA-Youth scales were computed for sample 1 (see Table 2 for selected results).

Insert Table 2 about here

Table 2 shows that the means were numerically highest for gratitude ($M = 4.11$) and lowest, but still above the scale mid-point for religiousness ($M = 3.26$). The scales were homogenous; the median of the internal consistencies of the scales was .77 and the median of the mean CITCs was .47. Skewness and kurtosis suggested normal distributions of all 24 scales. Minima and maxima of the scales indicated nearly the full range of variability with averaged minimal and maximal scores of 1.36 and 5.00, respectively.

Effects of age and gender on 24 character strengths

Estimating effects of age and gender on strengths level Pearson correlations were computed between the 24 character strengths, and age and gender. Table 2 shows that generally the effects were small. The averaged absolute correlation with age was $r = .08$. For

gender the effect sizes were slightly higher but also small in magnitude with averaged absolute coefficients of $r = .10$. Perseverance, religiousness, forgiveness, zest, and fairness showed the most substantial age effects indicating a linear decrease with increasing age. Generally, girls were more likely than boys to score higher on most of the character strengths. Beauty and kindness showed medium to large effects of $d = -.76$ and $d = -.72$, respectively, followed (in descending order of difference) by small to medium effects of fairness, love, teamwork, modesty, honesty, perspective, love of learning, and bravery with medium effect sizes (Cohen's d s between $-.41$ and $-.21$). Social intelligence and humor showed only small effects when comparing boys and girls (with Cohen's d s between $-.18$ and $-.16$).

Factorial structure

A principal component analysis (PCA) was computed for the 24 scales of the German VIA-Youth to identify the factor structure. The PCA yielded five factors with eigenvalues greater than 1.00 and also the scree test suggested the retention of five factors (Eigenvalues: 8.55, 2.22, 1.72, 1.37, 1.23, 0.87 and 0.84), which were subsequently rotated using direct oblimin. Table 2 shows that most strengths were markers for one of the five main factors (median of the highest loadings was $.66$). Only one scale (i.e., honesty) demonstrated double loadings (difference $\leq .10$). The five factors explained 62.86% of the variance. The resulting factor-solution was very similar to Gillham et al. (2011) showing convergences (Tucker's phi) of $.97$, $.97$, $.95$, $.93$, and $.89$ for the corresponding factors. Due to the high convergence the factor labels of Gillham et al. (2011) can be used as an interim consensus. Factor 1 represented *leadership strengths* (i.e., leadership, humor, perspective, social intelligence, and bravery), factor 2 *temperance strengths* (i.e., prudence, self-regulation, perseverance, open-mindedness, and honesty), factor 3 *intellectual strengths* (i.e., curiosity, love of learning, beauty, and creativity), factor 4 *transcendence strengths* (i.e., religiousness, zest, gratitude, love, and hope), and factor 5 *other-directed strengths* (i.e., modesty, forgiveness, kindness,

fairness, and teamwork). As we conducted an oblique rotation to the scales, we found moderate positive correlations among the five factors with a median of .26.

Stability

To analyze the short-term stability of the German VIA-Youth test-retest correlations (r_{tt}) were computed for each of the scales. Table 2 shows that the stability was high across the four months. The median of the retest reliabilities ($r_{tt}[4]$) for the 24 character strengths was .72. Scales with higher internal consistency also turned out to be more stable ($R = .69$).

Comparison of self-reports and parent-ratings

The self-/others-convergence was examined comparing targets' self-reports (sample 2) with parent-ratings (sample 3) of the targets by computing paired t-tests. Furthermore, Pearson correlations were computed indicating the self-parent agreement. Table 2 shows that parents rated significantly higher than target persons (self-reports) for prudence, love of learning, and honesty (with Cohen's d s between -.33 and -.28) and lower for gratitude, humor, teamwork, fairness, and hope (with Cohen's d s between .43 and .26). Correlations between self-reports and parent-reports showed a median of .41 indicating a moderate self-parent agreement. When convergence was low ($<.30$) then self-reports yielded higher means (and lower SDs) than the parent-ratings (e.g., teamwork, fairness).

The sample of parents was also used to add another perspective to gender differences in character strengths by analyzing also the parent-ratings under this perspective. The parents see girls primarily higher than boys in beauty ($r = .32, p < .001$) and kindness ($r = .25, p < .001$). Moreover, they assign higher scores to girls in bravery, social intelligence, perspective, teamwork, love, and fairness (showing r s between .23 and .14, all p s $<.05$). Thus, parent-ratings verified eight of the gender effects that were found for self-reported data. Furthermore, parents assigned girls higher scores in self-regulation ($r = .17, p = .013$) and boys higher scores in curiosity ($r = -.22, p = .001$).

Relationships between character strengths and global life satisfaction

Partial correlations (controlling for age and gender) between character strengths and global life satisfaction were computed. Table 2 shows that all correlations between 24 character strengths and global life satisfaction were positive. In more detail, zest, gratitude, love, and hope showed the most substantial correlations with *global life satisfaction* followed by teamwork, social intelligence, perspective, perseverance, leadership, honesty, humor and prudence. Modesty showed no relationship with global life satisfaction.

Relationships between character strengths and general self-efficacy

Table 2 shows partial correlations (controlled for age and gender) between character strengths and general self-efficacy. Hope, perspective, creativity, zest, teamwork, social intelligence, and gratitude showed the most substantial correlations with *general self-efficacy* (showing coefficients $\geq .50$). Modesty showed no relationship with general self-efficacy.

Discussion

Statistical review

The German VIA-Youth is a reliable and valid measure of the 24 character strengths. The German VIA-Youth appeared to measure characteristics that do not change much over a short time period of four months. A current study is following students over a period of between 2-3 years (with data collections on several occasions). These data will allow testing of developmental effects on character strengths. Self-reported and parent-rated character strengths converged in the expected range with a median of .41 (for results of German VIA-IS see Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010). This convergence appears to be higher than results reported by Park and Peterson (2006b). Furthermore, coefficients were higher than reported for other personality variables (e.g., Connolly, Kavanagh, & Viswesvaran, 2007). When gender effects were identified then girls scored higher than boys in character strengths. The two strongest gender differences, beauty and kindness, were also found in the parents-rated data. Smaller gender effects were found in both self-reports and parent-ratings, namely, bravery, social intelligence, perspective, love, teamwork, and

fairness. The finding that parents assigned girls higher scores in self-regulation and boys higher scores in curiosity needs to be replicated in future studies. These effects generalized across rating methods thereby suggesting that the gender effects found were valid. Age effects were small in general.

Factorial structure

This study provides initial information on the factorial structure of the 24 German VIA-Youth scales. Like Gillham et al. (2011) we found a five-factor solution with leadership strengths, temperance strengths, intellectual strengths, other-directed strengths, and transcendence strengths. Also the marker variables were identical to the ones of the US-study. As the factors seem to be replicable, a possible next step could be working on the concepts underpinning of the factors (e.g., what exactly is the nature of transcendence strengths). Thereafter, the use of confirmatory factor analysis (e.g., Schweizer, 2010) can be considered. It should be noted that this solution is different from the one proposed by Park and Peterson (2006b). Hence, further studies, also with different language versions are needed to further examine the structure and see where the redundancy in this instrument is. Also, analyses on strengths factor level might be helpful for a first data screening to get an impression of, for example, associations between broader strengths factors and other variables of interest. For a detailed data analysis we suggest the use of the full range of 24 character strengths.

Relationships between character strengths and life satisfaction

Character strengths correlated positively with global life satisfaction. Zest, love, gratitude, and hope showed the numerically highest relationships with life satisfaction. This is in line with prior results found for samples from the US (Park & Peterson, 2006b) and South Africa (Van Eeden et al., 2008). Thus, character strengths enable the good life already among children and adolescents. Compared to the study with adults (e.g., Peterson et al., 2007) only curiosity is missing from the list of potent predictors. These findings clearly show

that character strengths play a significant role in the prediction of life satisfaction already in this early stage of life and that partly other strengths are relevant for different outcome variables. Longitudinal studies are now needed to examine the directionality of these effects.

Relationships between character strengths and general self-efficacy

As expected, a notable connection between character strengths and general self-efficacy was found. While Luszczynska et al. (2005) found hope/optimism to be one important predictor of self-efficacious beliefs, the present study shows that while hope is a potent predictor a broad variety of other strengths correlated with general self-efficacy at nearly the same level. Thus, the more strength a child/adolescent has, the higher the self-efficacy beliefs.

Future research

Research is needed to gain additional validity information about the German VIA-Youth, for example, it should be studied whether the 24 character strengths have incremental predictive power regarding positive outcomes beyond the classical personality dimensions, such as Extraversion and Neuroticism. Projects are needed that will study the relationships between the 24 strengths and other important aspects of life for children and adolescents (e.g., school success, romantic relationships). Further studies are needed that investigate the influential factors that might have an impact on character strengths (e.g., parenting, organized youth activities).

Conclusions

Character strengths are reliably measurable in German-speaking samples. Beyond that psychometric stance one can argue that character strengths do matter to children and adolescents as they contribute substantially to global life satisfaction and general self-efficacy. Because of the good psychometrics and encouraging initial validity results of the German VIA-Youth, research about the good life in young German-speaking people is now possible.

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Table 1

Classification of Six Core Virtues and 24 Character Strengths

Virtue I. Wisdom and knowledge: cognitive strengths that entail the acquisition and use of knowledge.

- (1) creativity: thinking of novel and productive ways to do things
- (2) curiosity: taking an interest in all of ongoing experience
- (3) open-mindedness: thinking things through and examining them from all sides
- (4) love of learning: mastering new skills, topics, and bodies of knowledge
- (5) perspective: being able to provide wise counsel to others

Virtue II. Courage: emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal.

- (6) bravery: not shrinking from threat, challenge, difficulty, or pain
- (7) perseverance: finishing what one starts
- (8) honesty: speaking the truth and presenting oneself in a genuine way
- (9) zest: approaching life with excitement and energy

Virtue III. Humanity: interpersonal strengths that involve “tending and befriending” others.

- (10) love: valuing close relations with others
- (11) kindness: doing favors and good deeds for others
- (12) social intelligence: being aware of the motives and feelings of self and others

Virtue IV. Justice: civic strengths that underlie healthy community life.

- (13) teamwork: working well as member of a group or team
- (14) fairness: treating all people the same according to notions of fairness and justice
- (15) leadership: organizing group activities and seeing that they happen

Virtue V. Temperance: strengths that protect against excess.

- (16) forgiveness: forgiving those who have done wrong

(17) modesty: letting one's accomplishments speak for themselves

(18) prudence: being careful about one's choices; not saying or doing things that might later be regretted

(19) self-regulation: regulating what one feels and does

Virtue VI. Transcendence: strengths that forge connections to the larger universe and provide meaning.

(20) appreciation of beauty and excellence [short: beauty]: noticing and appreciating beauty, excellence, and/or skilled performance in all domains of life

(21) gratitude: being aware of and thankful for the good things that happen

(22) hope: expecting the best and working to achieve it

(23) humor: liking to laugh and joke; bringing smiles to other people

(24) religiousness: having coherent beliefs about the higher purpose and meaning of life

Table 2

Descriptive Statistics, Internal Consistencies, Averaged Corrected Item Total Correlations and Correlations with Age and Gender, Direct Oblimin Rotated 5-Factor Solution (Principal Component Analysis), Stability over a Period of Four Months, Comparison between Self-Reports and Parent-Ratings, and Partial Correlations Between the 24 German VIA-Youth Scales and Students' Life Satisfaction Scale (SLSS), and General Self-Efficacy Scale (GSE) (Controlled for Age and Gender)

VIA-Youth scales	Sample 1 ^a											Samples 2 and 3			Sample 4 ^d	
	<i>M</i>	<i>SD</i>	α	r_{it}	<i>Age</i>	<i>Sex</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	$r_{it(4)}^b$	r_{sp}^c	t^c	<i>SLSS</i>	<i>GSE</i>
Creativity	3.60	0.61	.77	.47	-.10*	.05	.26	.10	.67	-.08	-.04	.72	.43	1.84	.27*	.52*
Curiosity	3.55	0.58	.74	.44	.00	.01	.01	-.02	.83	.03	-.12	.71	.47	-1.78	.29*	.41*
Open-mindedness	3.47	0.54	.74	.43	-.03	.04	.13	.55	.40	-.14	.09	.67	.27	2.70	.22*	.43*
Love of learning	3.43	0.64	.77	.48	-.08	.11*	-.11	.33	.67	.11	-.02	.73	.42	-3.98*	.28*	.46*
Perspective	3.70	0.49	.70	.40	.01	.13*	.66	.21	.19	.03	.08	.72	.42	1.60	.33*	.52*
Bravery	3.71	0.54	.74	.45	-.01	.10*	.42	-.05	.27	.03	.27	.68	.40	-2.15	.27*	.46*
Perseverance	3.45	0.62	.81	.50	-.24*	.06	.10	.58	.18	.32	-.03	.79	.48	1.80	.33*	.49*
Honesty	3.66	0.57	.81	.53	-.09*	.15*	.12	.44	-.02	.22	.36	.82	.39	-3.71*	.32*	.40*
Zest	3.63	0.56	.76	.47	-.17*	.07	.27	.05	.22	.60	-.06	.73	.45	0.03	.48*	.52*
Love	4.03	0.62	.80	.50	-.04	.19*	.38	-.05	-.17	.67	.07	.77	.39	-1.02	.47*	.44*

Kindness	3.99	0.53	.81	.51	-.07	.33*	.24	-.11	.21	.18	.61	.75	.44	3.15	.26*	.34*
Social Intelligence	3.77	0.46	.65	.35	.03	.09*	.53	.27	-.06	.14	.25	.69	.28	1.41	.39*	.51*
Teamwork	3.96	0.50	.74	.44	-.07	.17*	.38	.20	.02	.06	.51	.69	.23	3.54*	.44*	.51*
Fairness	3.58	0.55	.75	.43	-.15*	.20*	-.02	.31	.17	-.06	.62	.74	.29	3.27*	.23*	.30*
Leadership	3.33	0.61	.81	.53	.05	-.02	.77	.13	.11	.00	-.22	.81	.48	0.95	.33*	.45*
Forgiveness	3.90	0.62	.81	.56	-.20*	.04	-.15	.00	.05	.24	.59	.67	.22	-1.08	.13	.18
Modesty	3.61	0.53	.68	.36	.01	.16*	-.03	.08	-.08	-.15	.79	.61	.34	1.77	.09	.10
Prudence	3.32	0.59	.74	.44	-.11*	.00	-.04	.81	.00	.04	.05	.70	.42	-4.41*	.30*	.45*
Self-regulation	3.41	0.60	.75	.42	-.10*	.03	.00	.66	-.04	.06	.32	.76	.43	2.42	.25*	.37*
Beauty	3.77	0.68	.79	.50	.00	.35*	-.05	-.19	.68	.07	.25	.72	.53	1.69	.14	.32*
Gratitude	4.11	0.54	.79	.50	-.08*	.07	.17	.09	.00	.68	.17	.72	.30	5.30*	.47*	.50*
Hope	3.85	0.56	.80	.51	-.04	-.05	.31	.29	.09	.52	-.18	.71	.36	3.35*	.45*	.54*
Humor	4.04	0.61	.82	.54	.07	.08	.65	-.42	.07	.15	.10	.76	.39	4.76*	.31*	.35*
Religiousness	3.26	1.07	.91	.70	-.22*	.01	-.33	.00	.10	.71	.01	.85	.70	-0.88	.11	.22*

Note. M = mean, SD = standard deviation, α = Cronbach's alpha, r_{it} = averaged corrected item-total correlation, Age = correlation with age, Sex = correlation with gender (1 = male, 2 = female). $C1$ to $C5$ = five components of the PCA. **Bold** indicates highest factor loadings of the scales. $r_{it}(4)$ = test-retest correlation with an interval of 4 months. r_{sp} = convergent correlation between self-reports and parent-ratings.

^a $N = 1,569$. ^b $N = 294$. ^c $N = 217$. ^d $N = 241$.

* $p < .002$.