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Gender differences in child/adolescent personality traits: Slovenes and Russians compared[#]

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Abstract: The present study compared gender differences in parental perceptions of child personality trait expression across different age groups in Slovenia and Russia. The patterns of gender differences in adolescents were further explored using parent and self-rating methods of assessment. Employing the Inventory of Child Individual Differences (Halverson et al., 2003) reports on large samples of children/adolescents (2 to 15 years) in both countries were obtained. Gender differences were small and similar across countries, and their patterns were closer to each other for the same data source across countries than they were for the two sources of information within the country. The parents in both countries concurred in rating daughters as somewhat more achievement orientated, compliant, considerate, and organized, whereas sons were assessed as slightly more active, antagonistic, and distractible. At the higher-order trait level, girls were perceived to be more conscientious and agreeable relative to the boys, especially from middle childhood onwards. Regarding self-reports, adolescent girls also scored significantly higher on Considerate and Positive Emotions scales than boys, while the former reported on higher agreeableness relative to the latter in Slovenia only. Gender differences were evident even in parental assessments of the youngest group but they did not systematically increase over children's age.

Keywords: personality, children, adolescents, gender differences, cross cultural differences

Razlike med spoloma v osebnostnih potezah otrok/mladostnikov: primerjava Slovencev in Rusov

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Povzetek: V raziskavi smo primerjali razlike med spoloma, kot se odražajo skozi starševo zaznavo izraznosti osebnostnih potez pri različno starih skupinah slovenskih in ruskih otrok/mladostnikov. Vzorce razlik med spoloma v zgodnjem mladostništvu smo preučevali tudi z dvema metodama, s starševo oceno

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osebnosti njihovih otrok in s samooceno mladostnikov. Z Vprašalnikom medosebnih razlik med otroki (Halverson idr., 2003) smo zbrali podatke o velikih vzorcih ciljnih posameznikov (starih od 2 do 15 let) v Sloveniji in Rusiji. Razlike med spoloma so bile majhne in podobne v obeh deželah. Vzorci teh razlik, ugotovljeni z isto metodo pridobivanja podatkov, so bili bolj podobni med deželama kot vzorci razlik, ki so v posamezni deželi temeljili na podatkih, zbranih z različnima metodama. Slovenski in ruski starši so na splošno hčerkam pripisali nekoliko višjo raven usmerjenosti k dosežku, ugodljivosti, obzirnosti in organiziranosti kot fantom, ki so jih ocenili kot nekoliko bolj dejavne, nasprotovalne in odkrenljive. Na ravni robustnih osebnostnih potez pa so dekleta opisali kot bolj vestna in sprejemljiva v primerjavi s fanti, zlasti od obdobja srednjega otroštva dalje. Mladostnice so se v obeh deželah ocenile značilno višje glede obzirnosti in pozitivnega čustvovanja v primerjavi z mladostniki, medtem ko so prve le v Sloveniji poročale o značilno višji ravni sprejemljivosti kot fanti. Razlike med spoloma so se pokazale že v starševih ocenah najmlajše skupine otrok, vendar se niso sistematično povečevale s starostjo ciljnih posameznikov.

Ključne besede: osebnost, otroci, mladostniki, razlike med spoloma, medkulturne razlike

CC = 2840

Personality traits are often considered as consistent and enduring tendencies to think and act in characteristic ways that are more expressions of human biology than products of life experience (McCrae & Costa, 2003; McCrae et al., 2000). The Five-Factor Model (FFM), a widely accepted taxonomy of personality traits, is one of universal generalizations, which at the time is enormously influential in the personality research. The FFM classifies most traits in terms of five broad dispositions: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. The FFM has been supported in a large variety of cultures using translations of personality questionnaires in both self-report (McCrae & Costa, 2003) and observer rating (McCrae, Martin, & Costa, 2005) versions. Studies of personality within the FFM framework also repeatedly noted differences in personality trait expression across cultures and gender (e.g., Costa, Terraciano, & McCrae, 2001; McCrae, Costa, Martin et al., 2004; McCrae et al., 2000; McCrae et al., 2002; McCrae, Terraciano et al., 2005).

Measurement of personality traits in childhood and adolescence

It has been argued that the basic structure of personality is basically the same in different adolescent and adult age groups (Allik, Laidra, Realo, & Pullman, 2004; McCrae et al., 2002; McCrae, Terracciano et al., 2005). On the other hand, developmental psychologists typically refer to stable individual differences among children as evidence of temperament. The traditions of personality and temperament research differ substantially (McCrae et al., 2002) and a consensus regarding the structure of children's personality starts to emerge within the framework of the FFM (McCrae et

al., 2000; Shiner & Caspi, 2003). The Five-Factor structure of personality has been recovered from ratings by parents and teachers of children and early adolescents (e.g., Goldberg, 2001; Halverson et al., 2003; Knyazev, Zupančič, & Slobodskaya, 2008; Mervielde, Buyst, & DeFruyt, 1995; Mervielde & DeFruyt, 1999; Resing, Bleichrodt, & Dekker, 1999; Zupančič, Gril, & Kavčič, 2006).

Adolescents' self-ratings have also revealed a factor structure similar to adults' self-ratings of personality (Allik et al., 2004; Donahue, 1994; McCrae et al., 2002; Scholte, van Aken, & van Lieshout, 1997; van Lieshout & Haselager, 1994). Furthermore, Markey, Markey, Ericksen and Tinsley (2002) have found that pre-adolescent children are able to reliably rate themselves using a standard measure of adult personality (NEO–Five-Factor Inventory; NEO-FFI) and that parent ratings of their children's personalities are related to these self-reports. Similar findings were shown with samples of older (Barbaranelli, Caprara, Rabasca, & Pastorelli, 2003) and younger school-age children (Measelle, John, Ablow, Cowan, & Cowan, 2005), and early adolescents (Knyazev et al., 2008), using measures specifically designed for child self-reports. Moreover, conducting confirmatory factor analyses with data obtained by one of such assessment tools, i.e. the Inventory of Child Individual Differences (ICID, Halverson et al., 2003), Knyazev et al. (2008) demonstrated that the structure of child/adolescent personality is similar in Slovenia and Russia, across genders, ages, and informants (parents and adolescents). The invariance of the proposed model, i.e. Extraversion (sociable, positive emotions, activity), Conscientiousness (achievement, organized, un-distractible), Neuroticism (fearful/insecure, shy, negative affect), Disagreeableness (antagonism, strong willed), and Openness (intelligent, open to experience), therefore allows to conduct between group analyses (e.g., gender differences) in the perceived higher- and lower-order trait expression (the five factors) of target children across age, country and methods of assessment (e.g., parent vs. self-report).

Gender differences in adult and child personality

Maccoby and Jacklin (1974) conducted the first major review of research on sex-related differences in cognition, temperament/personality, and social behavior in children and adults. They showed that males are consistently perceived as more assertive and less anxious than females, but that gender differences are small. Recent work suggested similar conclusions. In general, gender differences in traits related to Neuroticism have been reported, with females scoring higher than males (e.g., Feingold, 1994; Lynn & Martin, 1997; McCrae, Terracciano et al., 2005). In comparison to females, males have been also found to score higher on Psychoticism (Lynn & Martin, 1997), assertiveness, excitement seeking (Extraversion facets), ideas (Openness facet), and lower on Agreeableness (especially Warmth), esthetics and feelings (Openness facets) (McCrae, Terracciano et al., 2005). These results were invariant

across countries, methods (self- and report by others) and adult age-groups (Costa et al., 2001; Feingold, 1994; Lynn & Martin, 1997; McCrae, Terracciano et al., 2005).

Studies on gender differences in personality over childhood are scarce as child personality was long considered in terms of temperament. A recent meta-analysis (Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006) of gender differences in temperament (3-month- to 13-year-olds) suggests a large gender difference in effortful control and moderate differences in its lower order traits (attention regulation, inhibitory control, perceptual sensitivity), all favoring girls. Surgency and some traits (e.g., activity, impulsivity, high-intensity pleasure) within this factor showed a small difference favoring boys, while approach, positive mood, and shyness showed very small effect sizes favoring girls. With regard to negative affectivity, very small effects were found for difficult and intensity favoring boys and for fear favoring girls.

Similarly to the temperament research findings on gender differences in effortful control (Else-Quest et al., 2006) the most robust gender effect for Big Five categories in the analysis of free parental descriptions of 3 to 12 year old children from seven countries was that girls were ascribed more Conscientiousness descriptive words than boys (De Fruyt, Van Hiel, & Buyst, 1998). Contrary to the adult studies using self- or observer reports (Costa et al., 2001; Feingold, 1994; Lynn & Martin, 1997; McCrae, Terracciano et al., 2005), but in line with free descriptive approach, remarkable similarities across countries were also revealed for ICID ratings of child/early adolescent Conscientiousness with girls scoring higher than boys. At the lower order trait level, girls were consistently ascribed more organization, achievement orientation and compliance than boys who, in turn, scored higher on distractibility and activity than girls (e.g., Halverson, 2003; Slobodskaya, 2005; Zupančič et al., 2006). However, several gender differences were country specific. Slovene parents, for example, perceived girls as more emotionally stable than boys (Zupančič et al., 2006), especially due to lower level of fear/insecurity of the former in comparison to the latter, a result consonant with findings of a longitudinal, multiple-informant ICID study conducted with parents of Slovene pre-schoolers and first-graders (Zupančič & Kavčič, 2005, 2007).

In general, results obtained by cross-sectional studies of parent inventory reports (ICID) on children and early adolescents in different countries (Halverson, 2003; Slobodskaya, 2005; Zupančič et al., 2006) suggest small gender differences across different countries, especially in Slovenia and Russia. Previous findings also indicate that gender differences in mean levels of infant temperament traits and adolescent personality traits in Russia were smaller by comparison with Western society (Gartstein, Slobodskaya, & Kinsht, 2003; Slobodskaya, Safronova, Knyazev, & Wilson, 2001).

Three general models to address proximal causes of gender differences were suggested (see e.g. Feingold, 1994). The *biological model* proposes that the observed gender differences in personality scores reflect innate temperamental gender differences and emphasizes biological basis underlying individual differences in personal-

ity. According to the *socio-cultural model*, social and cultural factors directly produce gender differences in personality. There are several examples of this model: (a) the social role model contends that gender differences in social behavior stem from gender roles which determine behaviors that are appropriate for each gender and these behaviors may shape personality; (b) the expectancy model posits that socio-cultural factors eventuate in gender stereotypes. These cause gender differences in personality because the stereotype holders treat others in ways that result in others conforming to these stereotypes; (c) the artifact model explains gender differences on personality scale scores rather than in underlying constructs. Socio-cultural factors, e.g. gender stereotyping, result in genders holding different perspectives about the importance of possessing various personality traits and these differences differentially bias self-(other-)reports on personality characteristics. The gender differences in personality scale scores thus do not reflect solely corresponding gender differences in personality constructs that the inventory is supposed to measure. Finally, the *biosocial model* proposes that biological and socio-cultural factors both cause gender differences in personality. If genders are perceived differently because of the observable behavioral differences that are linked to innate temperamental gender differences, genders may be treated differently. And if social and cultural factors affect personality development, these factors may augment inherent gender differences.

The present study

This study aimed at comparison of gender differences in mean levels of higher- and lower-order child/adolescent personality traits in Slovenia and Russia, the countries differing in size, political-geographic position, exposure to Western influences, and economical situation but similar in some aspects of recent history and in scores of dimensions of culture as proposed by Hofstede (2001). Since most of previous child studies relied exclusively on parent reports, some of the gender differences in the perceived trait expression might have emerged due to different perceptions of their sons and daughters by parents in different cultures. One way to partially overcome these response biases would be a comparison of patterns of cross-cultural gender differences in parent- versus self-reported data. Therefore, we collected cross-sectional data from two sources: adult reports on children[1] and adolescent self-ratings. To reveal the robust gender differences across the two countries, we compared parental ratings in children of different ages (2 to 15 years). According to the biosocial hypothesis, the gender differences would appear even in toddlers and they would tend to increase as the children develop.

Although most of the cultures show the same pattern of relatively small gender differences, there are cultural variations in the magnitude of these differences. Con-

[1] The term children is used for parent ratings to designate children as well as early adolescents.

trary to the prediction from the social role model, gender differences in adults are the most pronounced in relatively rich, individualist, egalitarian and masculine cultures (Costa et al., 2001; McCrae, Terracciano et al., 2005). With respect to the dimensions of culture (Hofstede, 2001), both Slovenia and Russia appear to be relatively collectivist, high on power distance and low on masculinity. Accordingly, the personality gender differences in adult samples of the two countries as compared to those in most Western societies were found smaller and not consistently significant across the five factors (McCrae, Terracciano et al., 2005). Considering this along with previous reports on personality gender differences in children (Halverson, 2003; Slobodskaya, 2005; Zupančič et al., 2006) and given that Slovenia is, relative to Russia, higher on Gross National Income (World Bank, 2004) but lower on power distance, individualism, and masculinity (Hofstede, 2001), we expected to find similar and small gender differences in the two countries. We hypothesized that girls would be perceived to express higher levels of Agreeableness and Conscientiousness, and the corresponding marker traits (particularly according to parental ratings) than boys. Drawing from consistent findings in adults (Costa et al., 2001; Feingold, 1994; McCrae, Terracciano et al., 2005), it was also assumed that gender differences in Neuroticism in favor of females would start to emerge as children move toward adulthood.

Method

Slovene samples

The samples were selected from different Slovene regions covering urban and rural areas. The children attended one of the public (pre)schools and came from diverse family educational background.

Sample 1. Altogether 1850 adults (mostly mothers) rated 893 boys and 957 girls aged 2 to 15 years ($M = 8.7$, $SD = 4.1$); 10.5% of the mothers and 9% of the fathers completed compulsory school, 21.7% of the mothers and 34.8% of the fathers finished vocational school (10 or 11 years of schooling), 27.9% of the mothers and 25.9% of the fathers completed high school (12 or 13 years), 18.5% of the mothers and 13% of the fathers had additional two or three years of higher education, 16.7% of the mothers and 11.7% of the fathers had university degree, and 4.5% of the mothers and 5.4% of the fathers had academic degree (MA or PhD). The sample was divided into four age groups (data on age was missing for 17 children): 2–3 years ($N = 397$; 49% boys and 51% girls), 4–6 years ($N = 300$; 50% boys and 50% girls); 7–11 years ($N = 620$; 48% boys and 52% girls) and 12–15 years ($N = 516$; 47% boys and 53% girls).

Sample 2. A sample of 393 youths (186 boys, 207 girls) aged 12 to 14 years ($M = 13.5$, $SD = 0.33$) completed the ICID; 12.4% and 10.6% of adolescents' mothers and fathers, respectively, completed compulsory school, 22.1% and 34.3% of the mothers and fathers, respectively, finished vocational schooling, 29.3% and 27.9% of

the mothers and fathers, respectively, graduated from high school, 16.6% and 8.2% of the mothers and fathers, respectively, had higher education, 14.3% and 12.8% of the mothers and fathers, respectively, graduated from university, while 5.4% and 6% of the mothers and fathers, respectively, obtained academic degree.

Russian samples

The data were collected both in urban and rural areas of western Siberia, Russia. Most data came from Novosibirsk, the third largest Russian city and the economic and academic capital of Siberia. The recruitment was aimed to collect data from the diverse socioeconomic background.

Sample 1. Altogether 1635 parents or caregivers rated 844 boys and 791 girls aged 2 to 15 years ($M = 9.5$, $SD = 3.8$); 1.7% of the mothers and 1.7% of the fathers had eight years or less of compulsory schooling, 8.8% of the mothers and 14.8% of the fathers completed ten years of schooling, 42.2% of the mothers and 39.1% of the fathers had additional two or three years of college education, 45.9% of the mothers and 40.6% of the fathers had five or six years at the university or institute and 1.5% of the mothers and 3.8% of the fathers had an academic degree. For the subsequent analysis the sample was divided into four age groups (data on age was not reported for 29 children): 2–3 years ($N = 104$; 54% boys and 46% girls), 4–6 years ($N = 320$; 57% boys and 43% girls); 7–11 years ($N = 660$; 54% boys and 46% girls), and 12–15 years ($N = 552$; 52% boys and 48% girls).

Sample 2. A sample of 553 Russian youths (259 boys, 294 girls) aged 12 to 14 years ($M = 13.1$, $SD = 0.81$) completed questionnaires. Unfortunately, we do not have data on parental education for adolescents' reports, but according to parents' ratings their education correlated with 4 out of 15 traits and all of these correlations were low (data available at request).

Instrument

The Inventory of Child Individual Differences (ICID; Halverson et al., 2003) is a comprehensive, age and culture neutral measure of child personality consisting of 108 adjectives and phrases that describe children's characteristics in parental natural language. Each item is rated using a seven-point Likert scale with responses ranging from "*much less than the average child or not at all*" to "*much more than in the average child*". The items form 15 mid-level (lower-order) scales capturing aspects of the child's cognitive, social and emotional behavioral tendencies. The scales measure the following constructs: achievement orientation, activity level, antagonism, compliance, consideration, distractibility, fear/insecurity, intelligence, negative affectivity, openness to experience, organized behavior, positive emotionality, shyness, sociability, and strong will. For parent ratings, the scales have shown good reliabilities across countries and age groups (Halverson et al., 2003; Knyazev

& Slobodskaya, 2005; Knyazev et al., 2008; Zupančič et al., 2006). A close correspondence of the ICID scales to the set of FFM markers reported by other authors (e.g., Goldberg, 2001; Mervielde & De Fruyt, 1999) was demonstrated and so were the scales' links to measures of temperament and problem behavior (Halverson et al., 2003).

Both the Russian and the Slovene version of the ICID lower- and higher-order scales (the superfactors, Extraversion, Conscientiousness, (dis)Agreeableness, Neuroticism, and Openness) were extensively investigated. Sound psychometric properties, such as internal reliability, cross-observer agreement, stability over time, concurrent and longitudinal predictive validity against measures of social functioning, family relationships, academic achievement, and problem behaviour were suggested (Kavčič & Zupančič, 2006; Knyazev & Slobodskaya, 2005; Slobodskaya, 2005; Zupančič & Kavčič, 2007; Zupančič, Sočan, & Kavčič, 2007).

Procedure

The informants of the four samples participated on a voluntary basis and they were fully informed on the objectives and methods of the study. All of the participants were assured in the confidentiality of their responses. In Russia, the study was approved by the State Research Institute of Physiology SB RAMS Ethical Committee, while in Slovenia the required parental consent was obtained for both samples.

Across the countries, both the convenience and randomized sampling of parents and adolescents were used. The parents received envelopes containing the ICID with short written instructions on how to fill-in an inventory (demographic data was also requested). The parents were asked to complete the ICID in their home and return it in sealed envelopes within two weeks.

In both countries, most of adolescents were recruited through schools, self-reports were administered in school time as a part of the regular curriculum. The inventories which also contained brief questions on demographics were completed in approximately half an hour.

Results

Tables A1 (the Slovene sample) and A2 (the Russian sample) in the Appendix display means and standard deviations in ICID lower- and higher-order scale scores in boys and girls across four age groups (toddlerhood, early childhood, middle and late childhood, and early adolescence). In addition, Table 1 presents means and standard deviations in adolescents' ICID self-ratings for lower- and higher-order traits across genders and across the two countries. The scoring-key for the higher-order traits (the Big Five) utilised in the present study relied on the model that fitted data well in both countries, across age groups, genders, and rating methods (parent vs. self-

Table 1. *Means (and standard deviations in parentheses) in ICID adolescent self-ratings: Boys and girls across the two countries.*

	Slovenia ($N = 393$)		Russia ($N = 553$)	
ICID Scale	Boys	Girls	Boys	Girls
Achievement Orientation	5.01	4.94	4.69	4.63
	(0.92)	(0.92)	(0.97)	(0.97)
Activity Level	5.05	4.85	4.89	4.68
	(1.05)	(1.03)	(1.07)	(1.07)
Antagonism	3.02	2.74	2.78	2.60
	(0.84)	(0.78)	(1.02)	(1.04)
Compliant	4.67	4.67	4.54	4.51
	(0.88)	(0.77)	(1.00)	(0.81)
Considerate	4.54	4.88	4.71	4.92
	(0.89)	(0.80)	(1.01)	(0.92)
Distractible	3.49	3.48	3.4	3.38
	(0.93)	(0.86)	(1.01)	(0.90)
Fearful/Insecure	3.06	3.26	3.03	3.12
	(0.81)	(0.81)	(1.10)	(1.06)
Intelligent	4.83	4.76	4.58	4.61
	(0.84)	(0.77)	(0.83)	(0.76)
Negative Affect	3.45	3.51	2.99	3.0
	(1.08)	(1.03)	(1.07)	(1.03)
Open to Experience	4.99	5.12	4.85	4.98
	(0.82)	(0.79)	(0.88)	(0.79)
Organized	4.76	4.88	4.79	4.89
	(0.81)	(0.79)	(0.95)	(0.84)
Positive Emotions	4.86	5.05	4.74	4.96
	(0.91)	(0.93)	(0.98)	(0.90)
Shy	2.97	2.9	3.18	3.0
	(0.87)	(0.93)	(0.94)	(1.04)
Sociable	4.89	4.9	4.58	4.68
	(0.95)	(0.98)	(0.93)	(0.93)
Strong Willed	4.15	4.06	3.92	4.05
	(0.82)	(0.79)	(0.75)	(0.91)
Neuroticism	3.25	3.39	3.01	3.06
	(0.83)	(0.80)	(0.96)	(0.92)
Extraversion	4.89	4.98	4.76	4.87
	(0.70)	(0.74)	(0.75)	(0.68)
Openness	4.83	4.76	4.58	4.61
	(0.84)	(0.77)	(0.83)	(0.76)
Disagreeableness	3.5	3.37	3.39	3.38
	(0.58)	(0.54)	(0.62)	(0.66)
Conscientiousness	4.76	4.78	4.69	4.72
	(0.73)	(0.73)	(0.83)	(0.75)

report). Extraversion was defined by sociability, activity, and positive emotionality; Disagreeableness was characterized by antagonism and strong will; Neuroticism

captured fear/insecurity, negative affectivity, and shyness; Conscientiousness was described by organized behavior, achievement orientation and low distractibility; and Openness comprised intelligence and openness to experience. The Compliant and Considerate scales were omitted from the model due to their low discriminative validity (Knyazev et al., 2008). However, they were used in the analysis of lower-order traits.

Gender differences in each country, age group, and with respect to the method of assessment in early adolescence were calculated by *t*-test. Only the differences at 0.05 probability level or lower were accounted for. The magnitude of differences (effect size) was defined by *d*, a measure of how many standard deviations apart the two means are: a *d* of 0.2, 0.5, and 0.8 represents a small, medium, and large effect size, respectively (Cohen, 1988).

In the two countries, the direction of gender differences was quite similar for one informant, but differed between the informants. The differences between boys and girls in Slovene and Russian parent ratings of the total sample and in the Slovene and Russian adolescent self-ratings strongly correlated with each other (rank-order $r = .94$ and .76 for parent and self-ratings, respectively, both ps $< .001$). Contrariwise, within-country correlations of *d*s between parent and self-ratings of adolescents were substantially weaker ($r = .47$, $p = .038$ and $r = .36$, $p = .114$ for the Russian and the Slovene sample, respectively).

Gender differences in parent ratings of child trait expression across age groups

The effect sizes of gender differences derived from parent ratings across the four age groups and across the two countries are captured in Table 2. The magnitude of gender differences is small and similar in the two countries. Mean *d*s across the 20 variables were 0.16 in the Russian and 0.14 in the Slovene sample. Overall, in both countries, girls were rated by their parents as somewhat more achievement orientated, compliant, considerate, and organized, whereas boys were assessed as slightly more active, antagonistic, and distractible. Additionally, in Slovenia, boys were perceived as slightly more fearful/insecure, shy, and prone to negative affect, whereas in Russia, they were perceived as less intelligent than girls. On the higher-order scales, according to parent ratings, girls appeared more conscientious and agreeable in both countries. In Slovenia, girls were also assessed as slightly more emotionally stable, and in Russia as more open than boys. However, these descriptions present general trends in parental perceptions of their children's personality trait expression by child gender as all of the gender differences across the four age groups did not reach statistical significance.

Age trends in gender differences

As indicated in Table 2, gender differences across the two countries appear significant with regard to more personality traits in school age children and early

Table 2. Mean z-score gender differences (d) according to parent ratings of four age groups (2–3, 4–6, 7–11, and 12–15 years) in the two countries.

	2–3 years		4–6 years		7–11 years		12–15 years	
ICID Scale	Slovenia	Russia	Slovenia	Russia	Slovenia	Russia	Slovenia	Russia
Achievement Orientiation	–0.21*	–0.06	–0.08	–0.15	–0.03	–0.22**	–0.42***	–0.39***
Activity Level	0.11*	0.23	0.05	0.36**	0.28**	0.19*	0.32***	0.12
Antagonism	0.20*	–0.02	0.20	0.01	0.05	0.12	0.35***	0.19*
Compliant	–0.19	–0.15	–0.06	–0.08	–0.03	–0.15	–0.32***	–0.25**
Considerate	–0.27**	–0.23	–0.13	–0.02	–0.08	–0.13	–0.18	–0.18*
Distractible	0.25*	0.36	0.02	0.09	0.20*	0.29***	0.20*	0.37***
Fearful/Insecure	0.14	–0.07	0.27*	–0.13	0.09	0.12	0.10	0.06
Intelligent	–0.27**	–0.19	–0.13	–0.13	0.14	–0.25***	–0.11	–0.32***
Negative Affect	0.04	0.04	0.13	0.02	0.17*	0.13	0.12	0.02
Open to Experience	–0.22*	0.14	0.00	0.13	0.17*	–0.09	–0.08	–0.07
Organized	–0.20*	–0.15	–0.06	–0.20	–0.21**	–0.26***	–0.52***	–0.45***
Positive Emotions	–0.25*	–0.10	0.03	0.04	0.01	0.00	–0.11	–0.20*
Shy	0.26**	–0.09	0.18	–0.13	0.14*	0.05	0.18	0.13
Sociable	–0.21*	–0.05	0.01	0.11	–0.06	0.02	–0.10	–0.13
Strong Willed	–0.09	0.16	–0.03	0.06	0.02	0.14	–0.05	–0.17
Neuroticism	0.10	–0.01	0.22	–0.05	0.15*	0.15	0.13	0.05
Extraversion	–0.22*	0.02	–0.04	0.16	–0.04	0.08	–0.06	–0.12
Openness	–0.27**	–0.19	–0.13	–0.13	–0.07	0.14	–0.11	–0.32***
Disagreeableness	0.16	0.12	0.09	0.06	0.17*	0.10	0.29***	0.14
Conscientiousness	–0.26*	–0.22	–0.06	–0.18	–0.26**	–0.17*	–0.42***	–0.45***

Note. Positive value indicates that boys scored higher than girls.
*$p < .05$; **$p < .01$; ***$p < .001$.

adolescents relative to preschoolers whereas many small, though significant gender differences were also demonstrated in parental ratings of Slovene toddlers (note that the Russian sample of parents reporting on toddlers was considerably smaller). Actually, the mean *d*s were higher in the Slovene parents' assessments of toddlers (0.20) and early adolescents (0.21) than in ratings of preschoolers (0.10) and school children (0.12). The age trend in mean effect sizes of gender differences was 0.13, 0.11, 0.14, and 0.21 for assessments of Russian toddlers, preschoolers, school children, and early adolescents, respectively. A relatively consistent pattern of significant gender differences across countries was identified in parental reports on the two older groups: school age and adolescent daughters were ascribed higher levels of conscientiousness, organized behavior, and achievement orientation than were sons of the same age who were, in turn, assessed as more active and distractible in comparison to daughters.

Gender differences in self- vs. parent ratings of personality

Table 3 provides mean effect sizes of gender differences in lower- and higher-order personality traits across countries (Slovenia vs. Russia), and methods of assessment (parent vs. self-reports). The *d*s for gender differences according to parental data source are presented with regard to the total sample of target children/adolescents and the column *Self* provides *d*s for gender differences in early adolescents. Considering the adolescent age group only, the *d*s for self-report in Table 3 are compared with *d*s derived from parental ratings of the same age group displayed across the last two columns of the Table 2.

According to adolescent self-ratings, girls in both countries appeared significantly more considerate and prone to positive emotions than boys, who in turn, tended to rate themselves as more antagonistic (significantly in Slovenia) and active (significantly in Russia). Additionally, the Russian girls appeared to be significantly less shy in comparison to Russian boys, whereas Slovene girls provided significantly higher ratings with regard to fear/insecurity than did their male counterparts. On the higher-order scales, Slovene boys rated themselves as more disagreeable than Slovene girls.

As with overall parent reports on children/adolescents (mean *d*s for Slovenia and Russia were 0.14 and 0.16, respectively), and specifically on adolescents (mean *d*s were 0.21 in each country), the mean magnitude of gender differences in adolescent self-ratings were small: 0.14 in the Slovene and 0.10 in the Russian sample. Even the largest effect size did not exceed a difference of 0.39 *SD* in mean scores for self-reports on the Considerate scale (Slovene girls scored higher than Slovene boys). Except for a 0.52 *SD* difference (a medium effect size) in parent reports on their adolescent daughters' and sons' organized behavior (Slovene girls were rated higher than Slovene boys), all other gender differences derived from parental data on early adolescents were small in both countries. However, analyses of parental

versus self-ratings yielded significant gender differences in perceived expression of more adolescent personality traits as well as somewhat larger effect sizes of these differences. Several similarities in the pattern of significant gender differences relying on parental data sources were obtained across Slovenia and Russia: parents rated adolescent-girls as more achievement orientated, compliant, organized and conscientious than adolescent-boys who were, in turn, assessed as more antagonistic and distractible than were girls.

Table 3. *Mean z-score difference (d) between adolescent boys and girls according to overall parent- and adolescent self-ratings.*

	Russia		Slovenia	
	Parent	Self	Parent	Self
Achievement Orientation	–0.28***	0.05	–0.19***	0.08
Activity Level	0.22***	0.19*	0.22***	0.19
Antagonism	0.13*	0.17	0.18***	0.35***
Compliant	–0.20***	0.03	–0.16***	–0.00
Considerate	–0.14**	–0.22*	–0.16***	–0.39***
Distractible	0.30***	0.03	0.19***	0.01
Fearful/Insecure	0.06	–0.08	0.15**	–0.26*
Intelligent	–0.26***	–0.03	–0.07	0.08
Negative Affect	0.08	–0.01	0.13**	–0.06
Open to Experience	–0.02	–0.16	0.00	–0.16
Organized	–0.32***	–0.11	–0.28***	–0.15
Positive Emotions	–0.10	–0.23**	–0.08	–0.20*
Shy	0.05	0.18*	0.14**	0.08
Sociable	–0.01	–0.11	–0.06	–0.00
Strong Willed	–0.04	–0.16	0.02	0.12
Neuroticism	0.07	–0.06	0.16***	–0.16
Extraversion	–0.02	–0.15	–0.04	–0.12
Openness	–0.26***	–0.04	–0.07	0.08
Disagreeableness	0.13**	0.01	0.17***	0.23*
Conscientiousness	–0.34***	–0.04	–0.25***	–0.02

Note. Positive value indicates that boys scored higher than girls.
*$p < .05$; **$p < .01$; ***$p < .001$.

Overall, in both countries the pattern of gender differences in self- and parent reports was not similar. At the higher-order level, only higher disagreeableness of Slovene boys relative to Slovene girls was confirmed by both raters (also when specifically accounting for parent reports on adolescents). At the lower-order traits, significantly higher consideration of girls in comparison to boys was obtained across

countries and methods of assessment, the two Slovene groups of informants concurred in rating boys significantly higher for antagonism than girls (also when parents reported specifically on adolescents), whereas significantly higher activity level of boys relative to girls across the two data sources was demonstrated in Russia.

Discussion

Child and adolescent personality in two different cultural contexts (Slovenia and Russia) was assessed by parents and adolescents themselves. The higher- and lower-order personality traits were recorded through a specially designed assessment tool to capture child and early adolescent characteristics that are the most salient for parents across various cultural settings, the ICID (Halverson et al., 2003). Gender differences in the ICID trait scores were studied and compared between the two countries, across age groups and methods of assessment (parent- and self-report). As expected, even the significant gender differences were small across countries, age of the target children/adolescents, and informants reporting on adolescent trait expression. Gender differences as reflected from parental reports on children were present even among toddlers but appeared significant in Slovenia only, partly due to a small Russian sample size. However, the small differences between parents' ratings of toddler-boys and toddler-girls in both countries dropped in early childhood and reappeared significant with school age children, while the magnitude of gender differences increased in early adolescence. This pattern thus, does not lend unambiguous evidence in support of biosocial hypothesis.

According to our prediction, the magnitude of gender differences was similar in Slovenia and Russia but patterns of these differences were substantially different across the raters. The between-informants difference seems to be robust since it generalized across the two countries. The observed patterns of gender differences were much closer to each other for one source of information across the countries than they were for different sources of information within the country. It has been noted previously with adult samples that external ratings, as compared to self-ratings, systematically underestimate the magnitude of age and gender differences (McCrae, Costa, Hřebičková et al., 2004; McCrae, Costa, Martin et al., 2004). However, this was not the case in our study as the overall magnitude of personality gender differences was similar across parent- and self-reports, while the parental assessments yielded significant gender differences in more traits than the adolescent self-ratings. Considering the magnitude of gender differences derived from parental reports on adolescents only, the effect sizes were even higher than those demonstrated for self-ratings.

The direction of personality gender differences based on parent ratings appeared consistent to findings of other studies (e.g., Halverson, 2003; Kohnstamm, 1989; Zupančič et al., 2006; Zupančič & Kavčič, 2005, 2007), indicating that girls

are considered by their parents as slightly more expressive in socially desirable traits than boys across different cultural environments. Parents rated girls somewhat higher than boys on Conscientiousness (and on the respective lower-order traits) although the differences generally reached significance in school age children/adolescents. This lends support to previous findings on gender effect for Conscientiousness in free descriptive research (De Fruyt et al., 1998), parental ICID ratings (Halverson, 2003; Slobodskaya, 2005; Zupančič et al., 2006), and temperament assessments of children's effortful control (Else-Quest et al., 2006). Furthermore, the gender differences resulting from parental reports on adolescents' conscientiousness and organized behavior were larger in both countries than the differences obtained with assessments of children but no respective gender effect was established in adolescent self-ratings. The small effect of gender on Disagreeableness and on the Considerate scale (resulting also from self-reports) is in line with studies demonstrating that females score higher in the Agreeableness domain (Costa et al., 2001; McCrae, Terracianno et al., 2005), although other studies established no differences between boys and girls on this robust trait (De Fruyt et al., 1998; Zupančič et al., 2006). In addition, a higher level of activity in boys found in our study was in accord with findings from the temperament research (Else-Quest et al., 2006; Kohnstamm, 1989) and the results obtained from free parental descriptions (De Fruit et al., 1998). The gender differences in child personality trait expression may actually exist but there could be also a specific gender stereotypic bias in parental perception of their daughters' and sons' behavior as the differences between boys and girls derived from adolescents' self-reports did not appear in the same direction for several traits or were even absent. Alternatively, the gender differences in child/adolescent behavior may be exhibited differently at home (where parents observe it and create child personality judgments) than outside home, e.g. among the class-mates (where the adolescents provided self-report).

Inconsistently to the well-documented findings of females being less emotionally stable than males obtained through observer and self-reported personality questionnaires (e.g., McCrae, Terraciano et al., 2005), but in accord with results based on free parental descriptions (De Fruyt et al., 1998), the gender differences in the Neuroticism domain were mostly non-significant with our data. On the contrary, when the differences reached significance they appeared in the opposite direction. Overall, the Slovene parents, for example, rated boys higher on Neuroticism (and on all of the three corresponding lower-order traits) than girls, and the Russian adolescent boys reported on higher levels of shyness than their female peers. Our hypothesis that the personality scores would reflect more emotional instability in girls at least in adolescence was supported only with respect to the Fearful/Insecure facet of Neuroticism and specifically with Slovene self-reports. Another unexpected finding of our study was Russian parents' tendency to rate their daughters higher than sons on the Openness domain. This was mostly due to higher assessments of girls on the Intelligent scale, with gender differences reaching significance for the

two older groups of Russian children/adolescents as well as for Slovene toddlers. The results regarding both gender differences in Neuroticism and Openness/Intelligence are in contrast to the findings with free parental descriptions of children from seven countries (De Fruit et al., 1998) and to those one might have expected according to traditional stereotypes about gender roles. However, similarly to the interpretation by Costa et al. (2001), it might be equally plausible that parents more often emphasize intelligence and emotional stability in daughters than in sons because boys are expected to be bright and stable according to their gender role, while girls' intelligence and emotional stability is attributed to their personality.

Conclusions

The study compared gender differences in child/adolescent personality trait expression across two European countries. In both Slovenia and Russia large samples of target individuals were assessed by their caregivers and adolescents provided self-reports employing an internationally recognized age- and culture-neutral personality measure. To our knowledge no cross-cultural studies of child personality gender differences in mean level trait expression using the ICID data were published so far.

Overall, small gender effects in our study were in accord with expectations and their direction was similar across countries for each source of information. Notable dissimilarities between the informants in both countries were demonstrated, so that higher Agreeableness and Conscientiousness of females were observed for parent reports only, while the results for Neuroticism were inconclusive. Although gender differences in many traits were evident from parental reports on toddlers, the effect sizes did not increase with age of the targets until they reached adolescence. Both the absence of a clear pattern in magnitude of gender differences over age and a cross-sectional design of our study preclude an interpretation of gender differences as a result of personality development. Our findings indicate that, along with biological and social influences that presumably shape personality by gender, parental response bias may also contribute to the perceived gender differences in child/adolescent personality expression. In addition, there could be cohort differences in both gender differences in child/adolescent personality and in informants' response bias.

There are a number of limitations of this study one of which is that it was cross-sectional, and although the data came from different informants, they did not rate the same individuals altogether. Future studies should address this shortcoming using longitudinal and multiple-informant data. It may also be assumed that the Slovene sample was more representative for the population than the Russian sample which was actually western Siberian. Further, our results refer to parent evaluations of child/adolescent personality and adolescent self-reports. These do not merely reflect objectively recorded characteristics, but also parental and adolescent implicit theories on child and own personality, respectively. The field would therefore benefit

from intra- and inter-cultural studies on gender differences in developing personality by comparing observation measures with adult- and adolescent self-assessed child/adolescent inventories.

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Appendix

Table A1. *Means (and standard deviations in parentheses) in ICID parent ratings: Boys and girls across four age groups (2–3, 4–6, 7–11, and 12–15 years) – Slovene sample (N = 1850).*

	Total Sample		2–3 years		4–6 years		7–11 years		12–15 years	
ICID Scale	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Achievement	4.73	4.89	4.66	4.8	4.75	4.82	4.77	4.79	4.74	5.13
	(0.84)	(0.86)	(0.70)	(0.64)	(0.79)	(0.86)	(0.92)	(0.89)	(0.88)	(0.93)
Activity Level	5.1	4.89	5.11	5.02	5.13	5.07	5.13	4.87	5.01	4.7
	(0.93)	(0.98)	(0.90)	(0.82)	(0.89)	(1.26)	(0.97)	(0.94)	(0.92)	(0.94)
Antagonism	2.89	2.73	3.17	3.0	3.03	2.86	2.73	2.68	2.81	2.51
	(0.86)	(0.92)	(0.84)	(0.76)	(0.82)	(0.92)	(0.86)	(1.03)	(0.85)	(0.85)
Compliant	4.63	4.76	4.39	4.52	4.64	4.68	4.68	4.71	4.79	5.05
	(0.81)	(0.79)	(0.83)	(0.61)	(0.73)	(0.79)	(0.82)	(0.79)	(0.80)	(0.82)
Considerate	5.09	5.23	4.92	5.1	5.07	5.17	5.13	5.2	5.23	5.39
	(0.82)	(0.87)	(0.67)	(0.69)	(0.76)	(0.81)	(0.85)	(0.94)	(0.87)	(0.92)
Distractible	3.59	3.43	3.60	3.43	3.49	3.47	3.67	3.5	3.49	3.32
	(0.83)	(0.81)	(0.65)	(0.71)	(0.75)	(0.83)	(0.87)	(0.87)	(0.96)	(0.81)
Fearful/Insecure	3.55	3.43	3.58	3.48	3.64	3.42	3.58	3.5	3.41	3.33
	(0.83)	(0.81)	(0.68)	(0.76)	(0.79)	(0.80)	(0.89)	(0.83)	(0.88)	(0.85)
Intelligent	4.98	5.03	4.85	5.04	5.07	5.17	5.05	4.94	4.96	5.06
	(0.84)	(0.81)	(0.71)	(0.74)	(0.81)	(0.82)	(0.88)	(0.82)	(0.90)	(0.80)
Negative Affect	3.7	3.57	3.75	3.71	3.77	3.64	3.72	3.54	3.58	3.45
	(0.98)	(1.00)	(0.86)	(0.88)	(0.88)	(1.06)	(1.03)	(1.01)	(1.04)	(1.04)
Open to Experience	5.08	5.08	4.99	5.16	5.20	5.2	5.14	5.0	4.99	5.06
	(0.79)	(0.78)	(0.75)	(0.75)	(0.75)	(0.80)	(0.80)	(0.77)	(0.80)	(0.80)
Organized	4.44	4.67	4.46	4.58	4.51	4.56	4.4	4.59	4.43	4.89
	(0.79)	(0.83)	(0.64)	(0.62)	(0.77)	(0.86)	(0.83)	(0.87)	(0.85)	(0.87)
Positive Emotions	5.11	5.17	4.98	5.16	5.14	5.12	5.11	5.11	5.18	5.28
	(0.81)	(0.81)	(0.72)	(0.71)	(0.89)	(0.79)	(0.80)	(0.86)	(0.81)	(0.84)
Shy	3.2	3.08	3.27	3.05	3.22	3.07	3.12	3.08	3.27	3.12
	(0.86)	(0.90)	(0.77)	(0.88)	(0.78)	(0.93)	(0.92)	(0.88)	(0.89)	(0.92)
Sociable	4.85	4.9	4.70	4.86	4.90	4.89	4.93	4.91	4.93	4.91
	(0.85)	(0.83)	(0.77)	(0.82)	(0.77)	(0.86)	(0.90)	(0.79)	(0.90)	(0.86)
Strong Willed	4.1	4.08	4.29	4.36	4.19	4.22	4.08	3.97	4.08	3.92
	(0.80)	(0.81)	(0.77)	(0.80)	(0.87)	(0.91)	(0.75)	(0.76)	(0.75)	(0.75)
Neuroticism	3.63	3.5	3.66	3.6	3.71	3.53	3.65	3.52	3.65	3.39
	(0.79)	(0.81)	(0.68)	(0.70)	(0.74)	(0.82)	(0.82)	(0.82)	(0.82)	(0.86)
Extraversion	5.01	5.03	4.91	5.04	5.04	5.07	5.05	5.0	5.05	5.04
	(0.64)	(0.67)	(0.62)	(0.62)	(0.57)	(0.71)	(0.67)	(0.65)	(0.67)	(0.70)
Openness	4.98	5.03	4.85	5.04	5.07	5.17	5.05	4.94	5.05	5.06
	(0.84)	(0.81)	(0.71)	(0.74)	(0.81)	(0.82)	(0.88)	(0.82)	(0.88)	(0.85)
Disagreeableness	3.46	3.35	3.7	3.61	3.53	3.47	3.38	3.31	3.38	3.13
	(0.62)	(0.65)	(0.55)	(0.55)	(0.62)	(0.71)	(0.62)	(0.65)	(0.62)	(0.60)
Conscientiousness	4.53	4.71	4.51	4.65	4.59	4.64	4.5	4.63	4.5	4.9
	(0.72)	(0.73)	(0.58)	(0.54)	(0.69)	(0.76)	(0.76)	(0.76)	(0.76)	(0.76)

Table A2. *Means (and standard deviations in parentheses) in ICID parent ratings: Boys and girls across four age groups (2–3, 4–6, 7–11, and 12–15 years) – Russian sample (N = 1635).*

	Total Sample		2–3 years		4–6 years		7–11 years		12–15 years	
ICID Scale	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Achievement	4.32	4.57	4.43	4.47	4.28	4.41	4.32	4.51	4.33	4.73
	(0.89)	(0.91)	(0.80)	(0.67)	(0.77)	(0.88)	(0.84)	(0.87)	(1.06)	(0.97)
Activity Level	4.73	4.52	4.85	4.67	5.00	4.68	4.74	4.57	4.50	4.37
	(0.96)	(0.94)	(0.80)	(0.84)	(0.88)	(0.84)	(0.91)	(0.93)	(1.07)	(0.98)
Antagonism	2.84	2.71	2.84	2.86	2.94	2.93	2.85	2.73	2.76	2.58
	(0.97)	(0.98)	(0.89)	(1.07)	(0.95)	(0.97)	(0.96)	(1.03)	(1.01)	(0.91)
Compliant	4.38	4.54	4.18	4.29	4.29	4.35	4.34	4.4	4.55	4.76
	(0.79)	(0.80)	(0.78)	(0.61)	(0.67)	(0.71)	(0.75)	(0.80)	(0.90)	(0.81)
Considerate	4.81	4.94	4.82	5.01	4.82	4.84	4.78	4.9	4.86	5.01
	(0.89)	(0.86)	(0.74)	(0.90)	(0.85)	(0.87)	(0.87)	(0.86)	(0.97)	(0.85)
Distractible	3.87	3.62	3.74	3.48	3.78	3.71	3.98	3.74	3.83	3.48
	(0.84)	(0.84)	(0.71)	(0.70)	(0.75)	(0.73)	(0.78)	(0.85)	(0.98)	(0.87)
Fearful/Insecure	3.79	3.75	3.60	3.66	3.76	3.84	3.92	3.82	3.69	3.64
	(0.88)	(0.85)	(0.66)	(0.92)	(0.88)	(0.81)	(0.82)	(0.80)	(0.98)	(0.88)
Intelligent	4.4	4.61	4.6	4.74	4.53	4.63	4.3	4.5	4.41	4.69
	(0.82)	(0.78)	(0.85)	(0.64)	(0.78)	(0.75)	(0.74)	(0.77)	(0.93)	(0.82)
Negative Affect	3.28	3.19	3.24	3.2	3.33	3.31	3.38	3.24	3.12	3.09
	(1.0)	(0.99)	(0.88)	(1.01)	(0.97)	(0.99)	(0.99)	(1.04)	(1.04)	(0.95)
Open to Experience	4.84	4.86	5.04	4.93	5.00	4.9	4.76	4.83	4.79	4.85
	(0.78)	(0.80)	(0.78)	(0.79)	(0.78)	(0.79)	(0.77)	(0.82)	(0.78)	(0.78)
Organized	4.26	4.54	4.44	4.56	4.23	4.36	4.23	4.44	4.29	4.71
	(0.85)	(0.86)	(0.86)	(0.78)	(0.80)	(0.81)	(0.81)	(0.82)	(0.93)	(0.91)
Positive Emotions	4.93	5.02	5.11	5.19	5.10	5.06	4.89	4.97	4.85	5.01
	(0.87)	(0.83)	(0.79)	(0.81)	(0.87)	(0.83)	(0.87)	(0.86)	(0.87)	(0.80)
Shy	3.28	3.23	3.03	3.11	3.07	3.19	3.33	3.22	3.41	3.29
	(0.96)	(0.94)	(0.79)	(1.04)	(0.97)	(0.88)	(0.92)	(0.90)	(1.02)	(0.99)
Sociable	4.5	4.51	4.44	4.47	4.70	4.6	4.46	4.45	4.44	4.54
	(0.86)	(0.85)	(0.69)	(0.79)	(0.88)	(0.86)	(0.79)	(0.80)	(0.96)	(0.90)
Strong Willed	3.99	4.02	4.27	4.15	4.16	4.12	3.93	3.95	3.9	4.02
	(0.69)	(0.74)	(0.70)	(0.74)	(0.68)	(0.74)	(0.70)	(0.69)	(0.65)	(0.78)
Neuroticism	3.54	3.54	3.47	3.43	3.55	3.59	3.65	3.54	3.41	3.36
	(0.84)	(0.82)	(0.82)	(0.90)	(0.84)	(0.83)	(0.78)	(0.82)	(0.93)	(0.80)
Extraversion	4.75	4.75	4.77	4.86	4.92	4.82	4.71	4.75	4.67	4.75
	(0.67)	(0.67)	(0.68)	(0.69)	(0.69)	(0.68)	(0.63)	(0.67)	(0.72)	(0.68)
Openness	4.4	4.50	4.61	4.74	4.53	4.63	4.3	4.50	4.41	4.69
	(0.82)	(0.77)	(0.78)	(0.64)	(0.78)	(0.75)	(0.74)	(0.77)	(0.93)	(0.82)
Disagreeableness	3.49	3.43	3.41	3.57	3.61	3.57	3.49	3.43	3.37	3.28
	(0.62)	(0.64)	(0.63)	(0.60)	(0.58)	(0.59)	(0.61)	(0.64)	(0.65)	(0.62)
Conscientiousness	4.23	4.4	4.5	4.51	4.25	4.37	4.19	4.4	4.26	4.66
	(0.75)	(0.74)	(0.77)	(0.64)	(0.66)	(0.70)	(0.69)	(0.74)	(0.90)	(0.81)

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