## DEVELOPMENT OF PERSONALITY STRUCTURE FROM ADOLESCENCE TO OLD AGE: PRELIMINARY FINDINGS\*

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Abstract: The Czech version of the NEO-Five Factor Inventory (NEO-FFI) was used in the study of the development of personality structure from adolescence to old age. Participants consisted of 930 subjects (414 men, 516 women) aged 14-81. Results show that there is a relation between gender and self-report in the Big Five dimensions (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness). Women tend to score higher than men in all five personality dimensions. Differences between the age groups suggest that personality dimensions change during development. It was found that younger people score higher on Neuroticism, Extraversion and Openness scales, whereas older people score higher on Agreeableness and Conscientiousness scales. These findings were discussed and compared with the results of related studies in other countries.

Key words: five-factor model of personality, NEO-FFI, developmental trends of Big Five, cross-cultural comparison

Psychologists dealing with the development of personality have to accept the fact that they cannot know exactly what they are supposed to explain. In recent years, personality traits were systematically studied and the results support the hypothesis that personality structure contains Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. The five-factor personality structure is usually identified as Big Five (for details see Hřebíčková, 1997, 1999). Most of personality questionnaires contain the scales measuring Extraversion and Neuroticism - we can find many longitudinal studies, which show that these traits are relatively stable. The personality dimension which was labelled as Openness to experience (McCrae, Costa, 1985), or Culture (Norman, 1963) or Intellect (Goldberg, 1981) is not a part of standard personality questionnaires. Only Cattell's 16 PF contains scales relevant to Openness and it is evident that these scales have at least moderate stability during the development in adult age. Conclusions concerning stability and change in Agreeableness and Conscientiousness are not so persuasive, but researchers generally agree that personality after the age of 30 is stable.

P.T. Costa and R.R. McCrae (1988, 1994) found that younger people scored higher on Neuroticism, Extraversion, and Openness scales, whereas older people were higher on Agreeableness, and Conscientiousness.

The purpose of our study is to examine whether self-report in terms of the Big-Five dimensions is different for men and women and whether the five-factor personality structure is stable throughout the course of life. The Czech version of the NEO-Five-Factor Inventory (NEO-FFI, Costa, McCrae, 1992), a 60-item questionnaire measure of Neuroticism, Extraversion, Openness, Agreeableness,

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Conscientiousness was used in our research (for details of this method see Hřebíčková, Čermák, 1996). 930 individuals (414 men, 516 women) aged 14-81 completed the NEO-FFI.

Results show that there is a relation between gender and self-report in the Big Five dimensions. Women tend to score higher than men do in all of the five personality dimensions. The most significant difference was found in Agreeableness. Costa and McCrae (1992) found that American women score higher on Neuroticism and Agreeableness than American men. These differences are consistent with the findings of other researchers, who used different personality inventories Eysenck, (e.g., Eysenck, 1975). Borkenau and Ostendorf (1993)

found that German women had statistically significant higher score on scales measuring Neuroticism and Agreeableness than men. Moreover, women had higher score in the dimensions Extraversion and Openness, in comparison with men.

According to the preliminary analysis, our sample was divided into seven age groups: 14-17, 18-21, 22-30, 31-40, 41-50, 51-60, 61-81. Differences between the age groups supported the hypothesis on the tendency to change personality dimensions during development. With some exceptions, younger respondents describe themselves as more neurotic, more extraverted and more open to experiences, while older ones rated themselves as more agreeable and conscientious.

	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
14-17	37.9	42.2	38.6	41.0	38.3
18-21	35.8	41.0	38.4	43.0	40.5
22-30	33.0	40.3	39.6	42.7	41.0
31-40	32.5	39.1	36.2	42.9	42.9
41-50	32.8	40.2	36.1	43.9	43.7
51-60	32.6	39.3	36.6	41.4	42.1
61-81	35.9	38.1	35.9	43.7	44.5

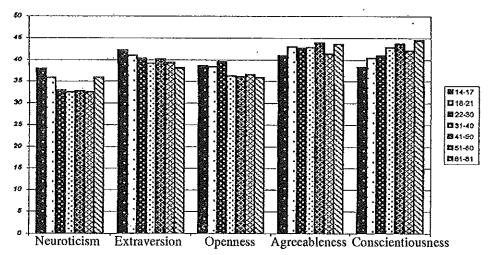


Figure 1. Five personality dimensions - cross-sectional analysis

The trend in the development of personality traits, which is evident in the American sample, was confirmed not only in the Czech respondents. Two previous studies have compared age differences in Big Five across cultures. Data were available from Germany, Italy, Portugal, Croatia, South Korea, Russia, Estonia, and Japan (Costa et al., in press). In four of the cultures (Italy, Croatia, Russia, and Estonia) there were no significant age effects for Neuroticism. In the other four cultures, Neuroticism was higher in younger respondents. The results for the remaining factors are easily summarized: In every culture the American pattern was replicated. Extraversion and Openness declined and Agreeableness and Conscientiousness increased with age. In another study (McCrae, et al., in press) analysis of the NEO-FFI in Germany, the United Kingdom, Spain, the Czech Republic and Turkey were reported. Most analyses confirm that there are significant crosssectional declines in Neuroticism and Extraversion and an increase in Conscientiousness in all five samples. There are significant increases in Agreeableness in the German, Czech, and Turkish samples, but these trends do not reach significance in the British and Spanish samples. The hypothesized decline in Openness to Experience is seen clearly in the Spanish sample, and is significant in the Czech and Turkish samples. German and British samples, by contrast, show significantly lower levels of Openness in the younger group than in the group of 18 to 21 years old.

The hypothesis about stability of personality traits after the age of 30, made out from the results of cross-cultural comparisons of developmental trends in the Big Five dimensions, can be formulated more precisely. From the age of 18 to 30 there

are declines in Neuroticism, Extraversion and Openness, and increases in Agreeableness and Conscientiousness; after the age of 30 the same trends are found, although the rate of change seems to decrease.

These data are largely consistent with earlier observations that the same pattern of age differences in personality traits can be seen across quite different cultures. There appear to be two possible explanations for this phenomenon. The first is that age differences reflect the influence of historical forces common to all these cultures, such as the rise of the mass media or the universal improvement in health care. It would seem to be a remarkable coincidence, however, that common historical forces affect all five factors, whereas historical experiences, unique to each culture, affect none of the factors enough to reverse the usual pattern. A second possibility is that there are natural progressions of personality development that occur regardless of cultural and historical context. Just as children learn to talk, count and reason in a fixed order and time course, adults may become more agreeable and less extraverted as a natural consequence of ageing. This notion of intrinsic maturation is indirectly supported not only by the cross-cultural universality but by two other lines of evidence - heritability and stability.

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## VÝVOJ STRUKTURY OSOBNOSTI OD ADOLESCENCE DO STÁŘÍ

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Souhm: Česká verze dotazníku NEO-FFI byla použita k měření jednotlivých dimenzí Big Five na souboru 945 osob. Výsledky ukazují, že dotazník postihuje rozdíly mezi muži a ženami a mezi skupinami osob různého věku v dimenzích Neuroticismus, Extraverze, Otevřenost vůči zkušenosti, Přívětivost a Svědomitost. Bylo zjištěno, že ženy mají vyšší míru všech měřených charakteristik, a že jednotlivé osobnostní charakteristiky se s věkem mění výrazněji u žen než u mužů. Mladší osoby se posuzují jako neurotičtější, extravertovanější a otevřenější vůči zkušenosti a naopak, starší osoby se hodnotí jako svědomitější a přívětivější. Tato zjištění byla diskutována s výsledky srovnatelných studií realizovaných v jiných zemích.