

Cross-cultural age difference in personality traits: Evidence from the US and Japan

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Mean-level change refers to gains and/or losses in specific personality traits over a prespecified period of time and age in the life course for a population of individuals.

From a perspective of the **maturity principle**, individuals become more agreeable, conscientious, and emotionally stable over time.

In order to elucidate the nature of adult personality development, **cross-sectional age differences** in the Big Five personality traits were examined using **cross-cultural datasets**: one from the United States, Western country (N = 1,807) and the other from Japan, Eastern country (N = 2,079). Participants whose ages ranged from 20 to 69 responded the Big Five personality measures via online survey.

Table 1. Sample description

nationality & age category	sample size	mean age	SD	age range
USA				
20s	309	24.77	3.05	20 - 29
30s	324	34.83	2.92	30 - 39
40s	320	44.29	2.86	40 - 49
50s	408	54.42	2.84	50 - 59
60s	446	63.83	2.77	60 - 69
Japan				
20s	409	25.44	2.74	20 - 29
30s	445	34.74	2.81	30 - 39
40s	378	44.08	2.93	40 - 49
50s	461	53.63	2.89	50 - 59
60s	386	63.10	2.73	60 - 69

Table 2. Results of regression analysis

	USA (N = 1,807)			Japan (N = 2,079)		
	age	age ² (centered)	R ²	age	age ² (centered)	R ²
Neuroticism	-.10 * ^a [-.15 - -.05]	-.07 * ^b [-.12 - -.02]	.014	-.29 * ^a [-.33 - -.25]	.01 ^b [-.03 - .06]	.083
Extraversion	-.04 ^c [-.09 - .01]	.02 [-.02 - .07]	.002	.07 * ^c [.03 - .11]	.02 [-.03 - .06]	.005
Openness	-.07 * ^d [-.11 - -.02]	-.02 [-.07 - .03]	.005	.01 ^d [-.04 - .05]	.02 [-.03 - .06]	.000
Agreeableness	.16 * [.12 - .21]	.02 [-.03 - .06]	.027	.19 * [.14 - .23]	.03 [-.02 - .07]	.036
Conscientiousness	.15 * [.10 - .20]	-.03 [-.08 - .02]	.024	.17 * [.13 - .22]	.00 [-.04 - .05]	.030

Note: * p < .01, 95% confidence intervals are reported in brackets, a-d: the magnitude of difference between Bs between the two countries was significant.

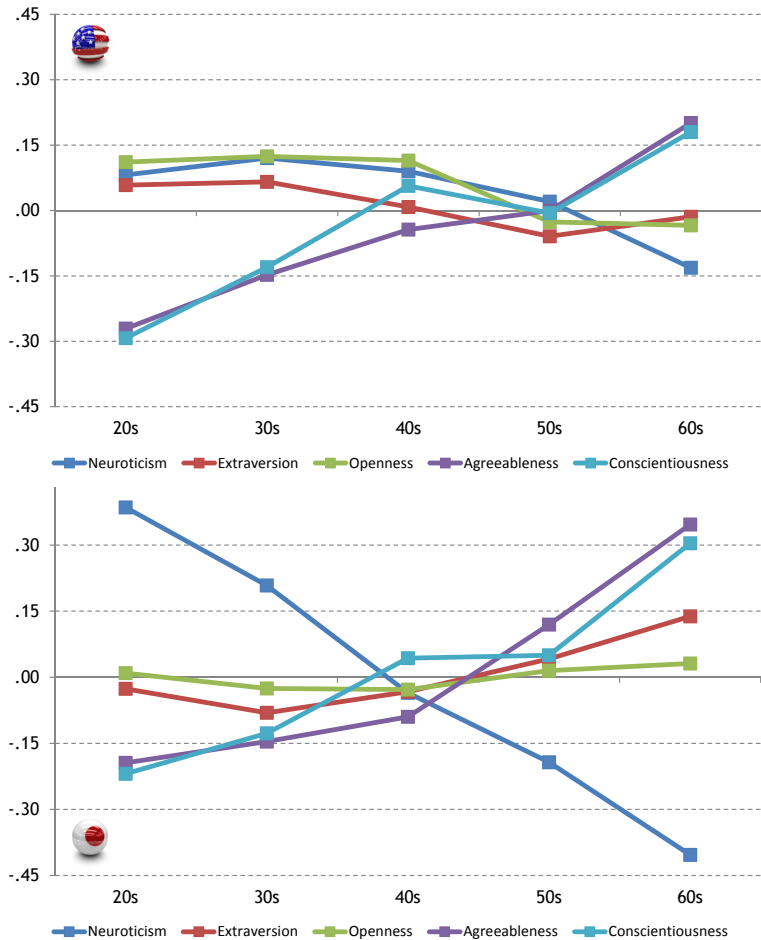


Figure 1. Mean-level differences across age groups. (Upper: the US, & Lower: Japan)

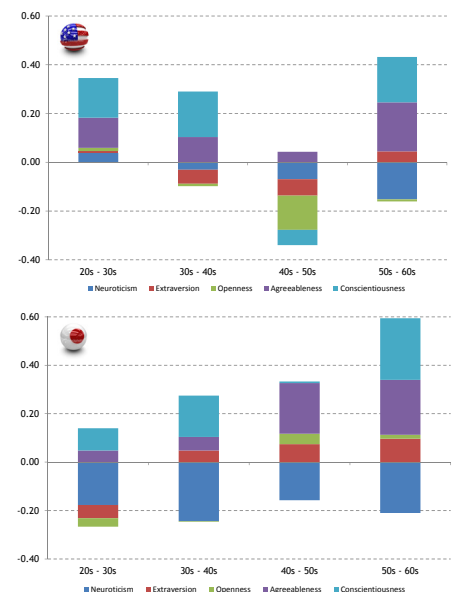


Figure 2. Aggregate mean-level changes in personality traits. (Upper: the US, & Lower: Japan)

- Our results indicated that A and C showed a linear increase with age across the two populations, and that N decreases with age in both populations and also decreases more sharply in Japan. The findings supported the maturity principle of personality development, suggesting that personality traits continue to develop in a positive trend during adulthood across cultures.
- Regression analyses revealed that the age and quadratic age effects were generally consistent between the two countries. Specifically, N was negatively associated with age, whereas A and C were positively associated with age. E and O showed almost flat trajectory during the adulthood. Similar patterns of effect size changes by age decades and the aggregate amount of changes were obtained.
- Findings from our study suggest that there may be similar intrinsic changes in the Big Five personality traits beyond cultures.