

Personality, Value, and Intergenerational Socioeconomic Mobility: Evidence from Vietnam

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Abstract

Intergenerational socioeconomic mobility is often attributed to cognitive factors like education, IQs, and heritability. Personality and values are believed to be heritable and stable over time, thus affecting the change in socioeconomic status among generations. This empirical study identifies the role of personality, values, and the interaction between them on the disparity in socioeconomic status between parents and children in Vietnam. Our research is based on a randomly-sampled survey of 450 students in different programs at the National Economics University (NEU). The estimation results indicate that besides education, most traits, among the big five traits, except openness and neuroticism, have significant positive effects on socioeconomic mobility. Furthermore, since values are considered to be behavioral manifestations of personality, we take into account the interactive effects of personality traits and personal values on socioeconomic mobility. It is interesting that we found many significant relations of personality-value interaction to socioeconomic mobility between generations. Additionally, gender inequality and the urban-rural gap are also illustrated in individuals' socioeconomic positions.

Keywords: Big Five personality traits; Intergenerational socioeconomic mobility; personality; Schwartz value theorem; value.

JEL code: J01, J62.

1. Introduction

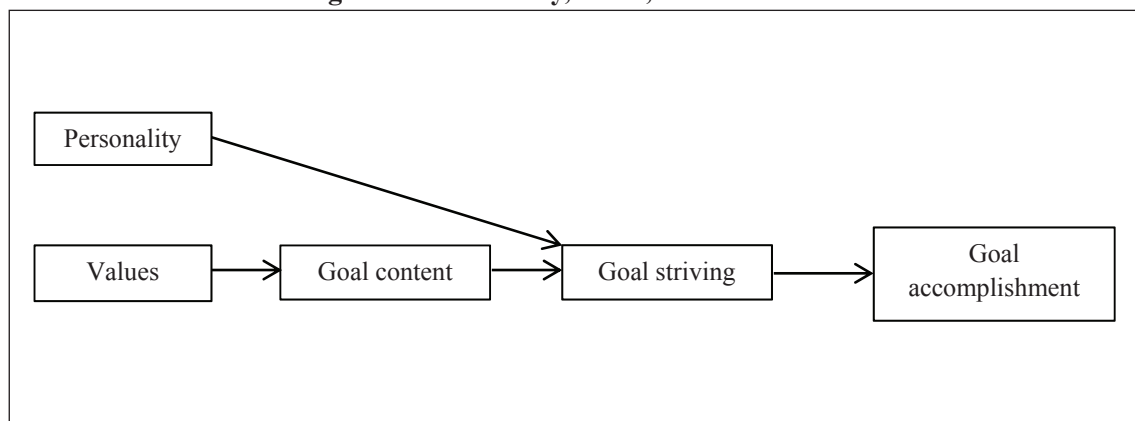
Intergenerational socioeconomic mobility refers to the relationship between the socioeconomic status of parents and the status their children will attain as adults (OECD, 2010). While some people do just as well as their parents did economically, many may experience an upward socioeconomic mobility when they outperform their parents in economic terms or a downward socioeconomic mobility when they end up in a lower socioeconomic class than that of their parents.

From the perspective of the whole economy, there are two patterns of socioeconomic mobility: (i) structural mobility, the situation in which all people are doing better than they used to or better than their parents did, and (ii) exchange mobility, the situation in which some people are changing their positions relative to others. Socioeconomic mobility varies across countries. Intergenerational mobility in earnings, wages, and education is lower in France, southern European countries, the United Kingdom, and the United States in com-

parison to that in Australia, Canada, and the Nordic countries (OECD, 2010). Cross country studies indicate that there are a number of macroeconomic environment and government policies that affect the socioeconomic mobility in a nation such as wage structure, tax policy, educational policy, and social structure. For instance, Erikson and Goldthorpe (1992) find that socioeconomic mobility is higher in countries with high economic equality. Couch and Dunn (1997) studied the data of the United States and Germany and concluded that the higher correlation of daughter's and mother's earnings in the United States compared to that in Germany can partly be explained by the fact that women's participation in the labor force is higher in the United States.

At the individual level, a number of demographic traits, including personality, are found to have influences on a person's socioeconomic mobility. Many studies have indicated that personality is one of the important factors contributing to the formation of a person's socioeconomic status. In theory, personality determines

Figure 1: Personality, value, and motivation



Source: Parks and Guay (2009).

motivation and actions individuals take to achieve goals. However, personality is not the sole construct underlying motivation. Parks and Guay (2009) propose that personality explains how people pursue their goals, while value, another construct underlying motivation, explains which goals they choose to pursue (see Figure 1). While there have been extensive studies on the relationship between personality and values, international evidence of the association of interactive effects between personality and values with intergenerational socioeconomic transmission is quite rare.

This paper attempts to fill the gap in the existing literature by examining the interactive effects between personality and value on intergenerational socioeconomic mobility in Vietnam. The findings of this research should contribute to more understanding of socioeconomic mobility and help identify policies to promote economic equality in the nation.

2. Theoretical framework and literature review

Intergenerational transmission of earnings

Commonly explained factors for transmission of earnings are schooling and cognitive performance. “While there is little agreement over the magnitude of the influence each factor has on the transmission of earnings, it is widely accepted that over fifty percent of the transmission of earnings is unaccounted for by cognitive skills and educational attainment” (Osborne, 2001). In addition to the factors reflecting an individual’s characteristics, factors inside the household like family education and heritability are also very important, but difficult to measure. Probably personality is a good proxy for these variables because personality

traits have a high degree of heritability and are relatively stable over time as well.

The influence of personality on socioeconomic achievements

Personality traits are typically defined as descriptions of people in terms of relatively stable patterns of behaviors, thoughts, and emotions (McCrae and Costa, 1987). The five-factor model, the most prevalent personality framework, combines a large number of traits into five broad trait domains, namely: openness to experience, agreeableness, extraversion, conscientiousness, and emotional stability.

Personality has been widely studied as a factor influencing life and career success. The effects of personality on economic outcome are extensively documented in economic research. Economic literature suggests that when people pursue their career advancement and wealth accumulation, some of their personality traits are rewarded while some are punished by the market.

Among the early literature, Turner and Martinez (1977) studied the effects of Machiavellian intelligence, which is claimed to be associated with a low score on agreeableness (Nyhus and Pons, 2005) and on socioeconomic achievement. They found a positive effect of Machiavellianism on socioeconomic status. This result, however, applies only to the subsample with a high level of education. For the subsample with low education, the effect is reversed. They explain these different results by referring to the proposition of Touhey (1993) that “manipulative skills may be valuable only if a person is intelligent enough to conceal them”. In the more recent literature, the negative effect of agreeableness on extrinsic career

success is also reported by Judge et al. (1999). In some cases nonetheless, agreeableness is found to be beneficial. For example, Will et al. (2002) studied the interactive effects between agreeableness and conscientiousness on job performance and found that among highly conscientious workers, those who report lower scores on agreeableness are rated as having lower performance than those with higher scores on agreeableness.

Another personality trait which is mostly reported as having negative effects on economic outcome is neuroticism. Judge et al. (1999) report a negative effect of neuroticism on intrinsic career success. A similar result is repeated by Gelissen and Graaf (2006), who find that people who score high in emotional stability (low in neuroticism) tend to earn more than those who score low in emotional stability.

Among the big five traits, openness to experience is the most controversial one. It is reported as negatively related to income by Seibert and Kraimer (2001). This result is supported by Gelissen and Graaf (2006). However, in other literature, openness to experience is found to be positively related to salary and promotion (Thomas et al., 2005) and to reinforce leadership and effectiveness (Judge et al., 2002).

The other two personality traits, extraversion and conscientiousness, are most of the time found to be positively correlated with economic outcome. People with high scores in extraversion tend to earn more than those with low scores in extraversion (Judge et al., 1999; Gelissen and Graaf, 2006). The result of Judge et al. (1999) is, however significant only for the male subsample. The gender differences in personality-economic outcome study are

also found in other papers. A study by Palifka (2009) indicates that personality traits are more significant for men than for women, but for the significant traits, most of the effects are larger for women.

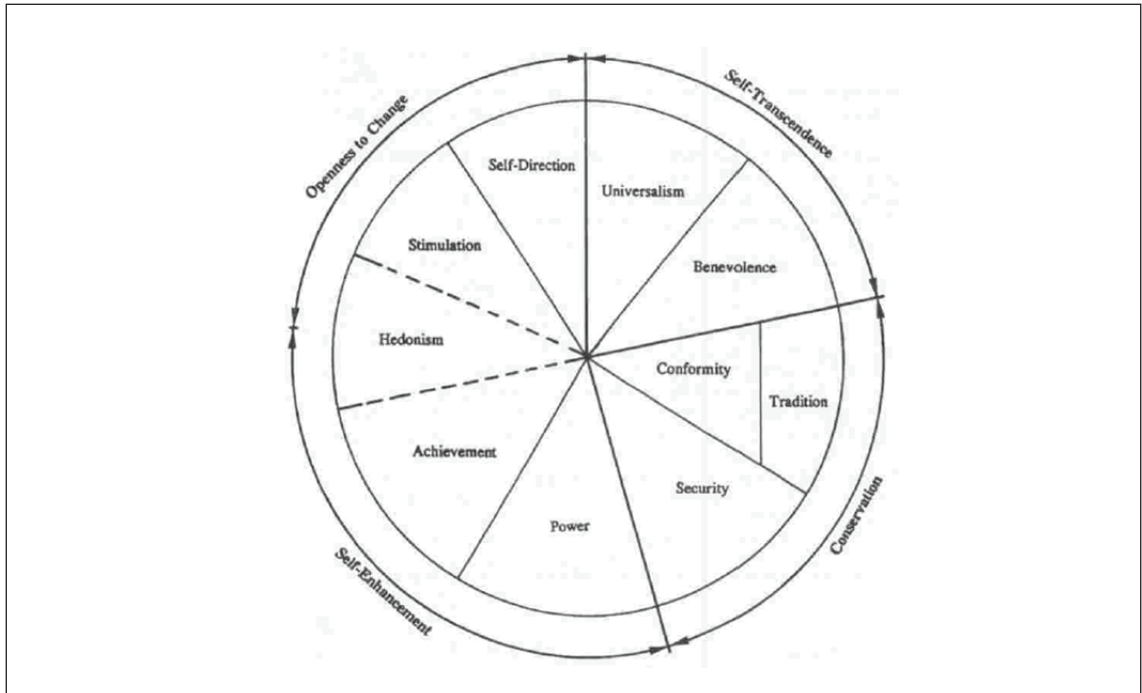
The last trait, conscientiousness, is found by Judge et al. (1999) to be the only significant personality trait that influences intrinsic career success and the most significant trait that influences extrinsic career success. It is also reported as the most stable trait across time periods.

The influence of values on socioeconomic status

Going back to the history of the development of value theories, the best-known theory of basic values in psychology is the “hierarchy of needs” developed by Abraham Maslow (1943). Since then, there have been many psychological studies of values, but the most widely-supported theory recently is the “Schwartz theory of basic human values” developed by Shalom Schwartz in 1992. According to this theory, personal values are classified into ten distinct types: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. The ten values are presented in a circle based on their interrelationships and grouped into four higher order types of values. The two-tiered types of values are structured on two bipolar dimensions: openness to change versus conservation, and self-enhancement versus self-transcendence (see Figure 2).

While there are a considerable number of studies on the influence of personality on economic outcome, the effects of value on economic outcome have been relatively rarely explored. The relation of value and job per-

Figure 2: The theoretical structure of values



Source: Schwartz (1992).

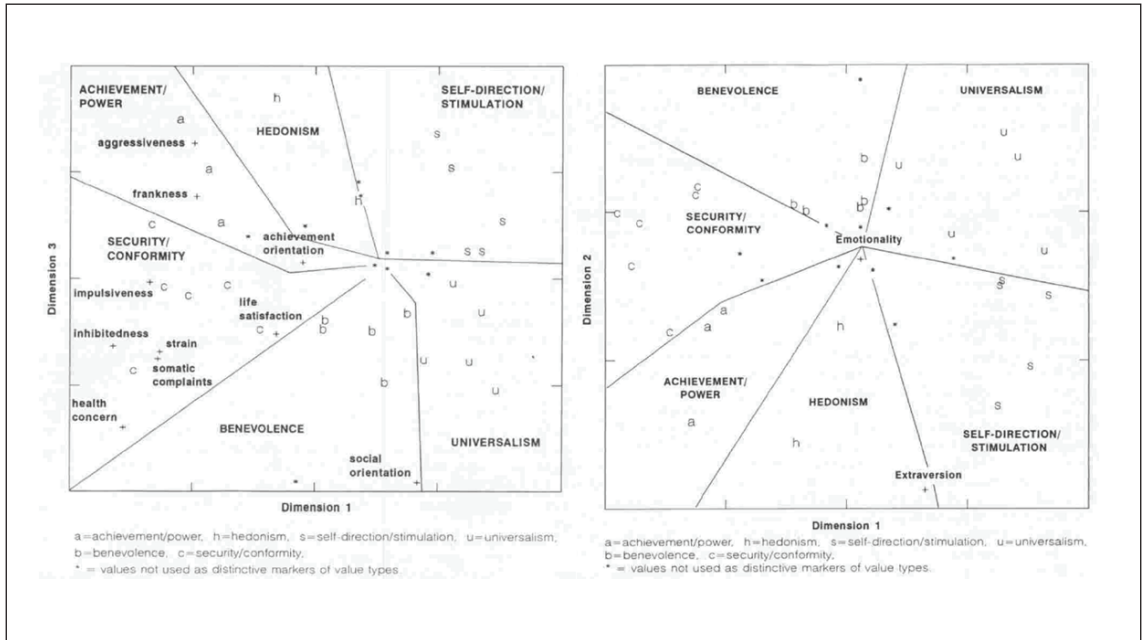
formance is one among the few topics studied in this area. The literature suggests that some values are beneficial and tend to encourage performance. For example, efficiency is found to be positively related to job performance (Gist and Mitchell, 1992) and to help people deal with obstacles during the goal pursuing process (Bandura, 1986). A contradicting result is however, reported by Vancouver et al. (2001) who find that self-efficacy leads to overconfidence and decreases performance.

The relationship between personal values and personality traits and the interactive effects of values and personality on intergenerational socioeconomic mobility

As found in previous research, there is some link between personality traits of the five-factor

model and personal values of the Schwartz value theory, and some traits may be more closely related to certain values than others (see Figure 3). Parks-Leduc et al. (2014) conducted a meta-analysis of the relationship between personality traits and personal values and found the meaningful relationships between them. According to the study, “the strength of the relationships between traits and values may be based on two sources of similarities – similarities in the nature of particular traits and values and similarities in the content of particular traits and values.” Considering the nature of these two categories, openness to experience proves to have the strongest links with values, followed by agreeableness, and emotional stability is considered to have the weakest links

Figure 3: The relationship between personality traits and personal values



Source: Bilsky and Schwartz (1994).

with values, and conscientiousness and extraversion should fall somewhere in between. In general, more cognitively based traits have stronger relationships with values. With respect to their content, openness to experience exhibits the strongest relationship with stimulation, self-direction, and universalism, but negative relation to conformity, tradition, and security. Agreeableness also shows a positive relationship with benevolence, conformity, and tradition, while negatively with power. Extraversion exhibits a positive relationship, though less strongly than do openness and agreeableness, to achievement and stimulation, power, achievement, and hedonism. Conscientiousness has a positive relationship, to a lesser degree, with achievement and conformity. And, emotional stability is likely to be unrelated to values.

To the authors' knowledge, the issues related to personality-/value-intergenerational socioeconomic mobility have not yet been studied much. Specifically, we have not found so far, any research on the interactive effects between personality traits and personal values on intergenerational socioeconomic mobility in Vietnam. This paper attempts to fill the gap in existing literature on personality-value-socioeconomic mobility.

3. Methodology and data

3.1. Method

In order to examine the structure of intergenerational socioeconomic mobility in Vietnam and to study the effects of personality traits, values, and the interactive effects between them on intergenerational socioeconomic mobility, we test the following hypotheses:

H_1 : There is an indeterminate relationship between an individual's level of openness to experience and intergenerational socioeconomic mobility.

H_2 : There is a negative relationship between an individual's level of neuroticism and intergenerational socioeconomic mobility.

H_3 : There is a positive relationship between an individual's level of conscientiousness and intergenerational socioeconomic mobility.

H_4 : There is a positive relationship between an individual's level of extraversion and intergenerational socioeconomic mobility.

H_5 : There is a positive relationship between an individual's level of agreeableness and intergenerational socioeconomic mobility.

H_6 : There are interactive effects of personality traits and value on intergenerational socioeconomic mobility.

We estimate the mobility from the following equations, each of which includes control variables reflecting the gap in terms of education level (education) and living condition of youth (urban/rural) and also exhibits the gender difference (gender):

$$Mobility_i = a_1 + b_1 \times education_i + c_1 \times gender_i + d_1 \times urban_i + e_1 \times personality_m + u_{1i}$$

$$Mobility_i = a_2 + b_2 \times education_i + c_2 \times gender_i + d_2 \times urban_i + e_2 \times personality_m \times value_n + u_{2i}$$

$$m = 1, \dots, 5; n = 1, \dots, 10$$

Ordinal logistic regression analysis is employed to assess the contribution of the Big Five personality traits and personal values to intergenerational socioeconomic mobility. The dependent variable is an ordinal variable constituting the difference in socioeconomic status

between parents and offspring. To test the proportional odds assumption (or parallel regression assumption) to ensure the accuracy and reliability of the estimation results, the likelihood ratio test and the Brant test are used.

As all questions relating to personality and value are designed using a five-point Likert scale with values "Not like me at all", "Not like me", "Somewhat like me", "Like me", and "Very much like me", we assume that all of the variables are interval ones. The Likelihood Ratio Chi-Square test, the Bayesian information criterion and the Akaike information criterion tests are employed to test whether the assumption of linearity of these variables is justified. All test results indicate that models that treat these variables as continuous variables are preferable. In addition, the results of correlation tests show that there is a very low association between the independent variables in the models.

3.2. Data and variables

The data was collected by the random sampling method. We conducted a survey of 450 students in different programs of NEU. As the students are different from each other in terms of age, sex, education, job, and so on, the sample is random and objective.

The dependent variable, intergenerational socioeconomic mobility, and the independent variables, personality traits and personal values are measured as follows.

Intergenerational socioeconomic mobility

One's occupation indicates his/her socioeconomic status. To determine intergenerational socioeconomic mobility, the occupational data of individuals and their parents is collected

Table 1: Classification of occupations

Occupation	Rank
Traditional professionals, managers in large firms <i>Such as: doctor/ pharmacist/ scientist/ engineer/ architect/ university professor/ psychologist/ lawyer</i>	9
Modern professionals, higher-grade technicians, managers in small firms <i>Such as: school teacher/ nurse/ programmer/ scientific technician/ broker/ insurance representative/ high-ranked police/ secretary/ artist/ writer/ designer/ reporter/ photographer</i>	8
Routine non-manual employees (high-skilled) <i>Such as: clerk/ nurse assistant/ teacher assistant/ flight attendant</i>	7
Small proprietors <i>Such as: restaurant owner</i>	6
Technical occupations, supervisors of manual workers <i>Such as: police/ soldier/ firefighter/ electronic/ mechanic</i>	5
Routine non-manual employees (semi-skilled and unskilled) <i>Such as: cashier/ receptionist</i>	4
Skilled manual workers <i>Such as: jewelry maker/ cook/ hair dresser/ make-up artist/ tailor</i>	3
Semi-skilled and unskilled manual workers (not in agriculture) <i>Such as: security/ driver/ messenger</i>	2
Farmer	1

Table 2: Classification of questions into different personality traits

Description	Personality trait
I am reserved.	Openness (-)
I have an active imagination.	Openness (+)
I value artistic experiences.	Openness (+)
I do things effectively and efficiently.	Conscientiousness (+)
I do a thorough job.	Conscientiousness (+)
I tend to be lazy.	Conscientiousness (-)
I am communicative, talkative.	Extraversion (+)
I am outgoing, sociable.	Extraversion (+)
I am considerate and kind to others.	Agreeableness (+)
I have a forgiving nature.	Agreeableness (+)
I think the government should redistribute income from the better-off to those who are less well-off.	Agreeableness (+)
I am sometimes somewhat rude to others.	Agreeableness (-)
I worry a lot.	Neuroticism (+)
I get nervous easily.	Neuroticism (+)
I am relaxed, handle stress well.	Neuroticism (-)
I am happy.	Neuroticism (-)

Table 3: Ten values and their descriptions

Description	Value
It is important to me to be rich; to have a lot of money and expensive things.	Power
It is important to me to be very successful; to have people recognize my achievements.	Achievement
It is important to me to have a good time; to “spoil” myself.	Hedonism
I look for adventures and like to take risks. I want to have an exciting life.	Stimulation
It is important to me to think up new ideas and be creative; to do things in my own original way.	Self-direction
Caring for the nature and looking after the environment are important to me.	Universalism
It is important to me to help the people around me; to care for their well-being.	Benevolence
Tradition is important to me. I try to follow the customs handed down by my religion or my family.	Tradition
It is important to me to always behave properly; to avoid doing anything people would say is wrong.	Conformity
It is important to me to live in secure surroundings; to avoid anything that might be dangerous.	Security

under the ISCO88 scheme and is converted to Erikson and Goldthorpe (1992) using Ganzeboom and Treiman (2003). Accordingly, the occupation variable comprises nine categories which have a clear ordering. Assuming that this is an interval variable with equally spaced categories, we assign scores 1 to 9 to the nine categories, with the lowest ranked job coded as 1 and the highest coded as 9 (see Table 1).

Intergenerational mobility is represented by the difference in occupation between parents and offspring and then recoded to a range from 1 to 18; in which 1 indicates the most substantial downward mobility while 18 indicates the biggest improvement in socioeconomic class compared to the previous generation.

Personality

The Big Five personality traits are measured by a self-report measurement. The selected questions are the fifteen-item version of Gerlitz and Schupp (2005), as illustrated in Table 2. The traits are openness to experience, conscientiousness, extraversion, agreeableness,

and neuroticism. This measure is referred to as being reliable and having a high validity. Evidence suggests that the measure is related to peer rating (McCare and Costa, 1987) and objective behavior (Epstein, 1979). It is also stable over time (McCare, 1990).

Value

Value is classified according to the Schwartz value theory. The ten personal values are power (public image and authority), achievement (ambition and competence), hedonism (pursuit of pleasure), stimulation (variety and novelty), self-direction (independence and self-set goals), universalism (justice and equality), benevolence (honesty and loyalty), conformity (obedience and self-discipline), tradition (respect for tradition), and security (safety and stability). Table 3 presents the ten values and their descriptions, which are the ten corresponding questions in the questionnaire used for data collection.

Descriptive statistics for the sample are presented in Table 4.

Table 4: Descriptive statistics of all variables

Variables	Mean	Maximum	Minimum	Std. Dev.
Occupation	6.98	9	1	1.87
Father's occupation	4.87	9	1	2.98
Mother's occupation	4.62	9	1	3.07
Education	3.98	6	1	0.70
Father's education	3.12	6	1	1.08
Mother's education	2.74	6	1	0.97
Sex (Male=1, Female=0)	0.41	1	0	0.49
Urban (Urban=1, Rural=0)	0.26	1	0	0.44
<i>Personality: Openness</i>	4.44	9	0	1.79
<i>Personality: Conscientiousness</i>	4.71	9	-2	1.84
<i>Personality: Extraversion</i>	6.87	10	3	1.63
<i>Personality: Agreeableness</i>	12.72	19	3	2.98
<i>Personality: Neuroticism</i>	-4.23	6	-12	2.96
<i>Value: Power</i>	2.93	5	1	0.98
<i>Value: Achievement</i>	3.46	5	1	0.97
<i>Value: Hedonism</i>	3.34	5	1	0.95
<i>Value: Stimulation</i>	3.10	5	1	1.04
<i>Value: Self-direction</i>	3.58	5	1	0.94
<i>Value: Universalism</i>	3.46	5	1	0.86
<i>Value: Benevolence</i>	3.66	5	1	0.77
<i>Value: Tradition</i>	3.62	5	1	0.98
<i>Value: Conformity</i>	3.49	5	1	0.96
<i>Value: Security</i>	3.57	5	1	0.96

4. Empirical results

First of all, we evaluate the impact of each personality trait presented in Table 1 on inter-generational socioeconomic mobility.

The results presented in Table 5 indicate that the traits of openness to experience and neuroticism do not demonstrate any significant influences on mobility, according to the estimated results. As indicated in literature, the impact of *openness to experience* on career advancement is the most controversial among the big five personality traits; consequently, that the corresponding estimated coefficients are statistically insignificant may suggest their positive

and negative effects partly offsetting each other. In particular, as illustrated in Table 5, the openness personality trait tends to have negative impact on the father-offspring relationship while impacts positively the mother-offspring relationship. Meanwhile, although the *neuroticism* trait seems to invariably have a negative effect on mobility as expected, all the relating estimated coefficients are not statistically significant.

Besides openness and neuroticism, all of the other traits demonstrate significant positive relationships with upward socioeconomic mobility.

In fact, according to the results, the more conscientious (organized and dutiful), extroverted (outgoing, assertive, and energetic), and agreeable (friendly and compassionate) people are, the higher the gain they can make in socioeconomic status compared with their parents. Of which, the most marked and largest impact is seen in the trait of conscientiousness, whereas the smallest is in agreeableness. These findings are highly consistent with our expectations based on the existing literature. Specifically, as mentioned above, among the big five traits, *conscientiousness* proves to be the most significant and steady personality trait that determines career success (Judge et al., 1999). In addition, people with high scores in *extraversion* tend to have better socioeconomic achievement (Judge et al., 1999; Gelissen and Graaf, 2006), whereas there still exist disputes over the impact of *agreeableness*.

On another hand, the coefficients of conscientiousness and extraversion are higher and more significant for the mother-offspring relationship, which implies the relatively lower socioeconomic rank of mothers, while the opposite is true for that of agreeableness.

The interactive effects of personality traits and values on intergenerational socioeconomic mobility are then taken into consideration.

According to the empirical results, despite various relevant value types being supplemented to specify the personality traits, the coefficients of variables regarding *openness* and *neuroticism* are still not statistically significant (see Table 6 and Table 10). The former tends to have positive impact on the differences between fathers' and offspring's status but negative impact on that between mothers' and offspring's

(except for *hedonism*), while the signs of all estimated coefficients with regard to the latter are negative, which seems to be consistent with the existing literature. The impacts of these two aspects of human characteristics on the change in socioeconomic class between the two generations, nonetheless, are not evident.

In stark contrast, out of the big five personality traits, *conscientiousness* still proves its position as the trait with the highest impact on mobility. The interactive impacts of conscientiousness and different relating values are all highly significant and also the most considerable in comparison with the other traits. Furthermore, these impacts are more marked and larger in magnitude for mother-offspring mobility, in which there is little difference among the five relating values, namely *power*, *achievement*, *tradition*, *conformity*, and *security*. On another hand, in terms of the changes in class between fathers and their offspring, the interactive effects between conscientiousness and the value types of *conformity* and *security* are the most considerable, followed by *power*, *tradition*, and *achievement*, respectively (see Table 7).

Similarly, with regard to the *extraversion* trait, its interactive influences with various values also tend to be more significant with the upswing between mothers and their offspring in terms of socioeconomic status. In fact, while the values of *stimulation* and *self-direction* have no statistically significant effect on father-offspring mobility, they are highly significant for mother-offspring mobility, not to mention the considerably larger magnitude of these impacts on the latter relationship. Likewise, the positive impact of the interaction be-

Table 5: The impacts of each of the five personality traits on intergenerational socioeconomic mobility between father/mother and offspring

D-occupation	(1f)	(2f)	(3f)	(4f)	(5f)	(1m)	(2m)	(3m)	(4m)	(5m)
D_education	0.869*** (0.108)	0.880*** (0.108)	0.870*** (0.107)	0.904*** (0.109)	0.880*** (0.108)	0.994*** (0.110)	1.034*** (0.111)	1.032*** (0.111)	1.002*** (0.109)	1.009*** (0.110)
Gender	0.643*** (0.207)	0.606*** (0.206)	0.623*** (0.207)	0.697*** (0.211)	0.579*** (0.210)	0.407*** (0.205)	0.385** (0.203)	0.445** (0.204)	0.463** (0.208)	0.373* (0.209)
Urban/Rural	-0.549*** (0.229)	-0.608*** (0.230)	-0.640*** (0.228)	-0.508** (0.229)	-0.584** (0.229)	-0.727*** (0.231)	-0.759*** (0.232)	-0.817*** (0.231)	-0.733*** (0.232)	-0.758*** (0.232)
Openness	-0.067 (0.055)					0.015 (0.056)				
Conscientiousness		0.180*** (0.056)					0.258*** (0.059)			
Extraversion			0.113* (0.061)					0.174*** (0.061)		
Agreeableness				0.091** (0.036)					0.061* (0.036)	
Neuroticism					-0.040 (0.036)					-0.038 (0.036)

tween the trait of extraversion and the value of *benevolence* on mother-offspring mobility is higher and substantially more significant (with statistical significance of 1% compared to 10% for father-offspring). Meanwhile, the interactions with values of *conformity* and *security* prove the equally significant and considerable positive impacts on the father- and mother-offspring relationships in terms of class; whereas, the value of *hedonism* seems to have no evident impact on both relationships (see Table 8).

Interestingly, the impact of *agreeableness* on mobility, although it's still statistically significant, is relatively smaller compared to other traits. While the interactive variables with the values of *power* and *achievement* do not present any significant impact on the improvement regarding socioeconomic status, those with *conformity* and *security* are only statistically significant for father-offspring mobility (with significance of 10%). On the contrary, the positive and highly significant interactive influence of the agreeableness personality trait and the value of *benevolence* is completely identical in the father and mother-offspring relationships, while that of the agreeableness and the value of *universalism*, which is significant in both relationships, is more evident and larger in magnitude for the upswing in class between mother and offspring (see Table 9).

In general, the estimation results support all of the six hypotheses formulated.

In addition, every model employed includes control variables reflecting *the gap in terms of education level and living condition of youth (urban/rural)* and also exhibits the *gender difference*.

The corresponding coefficients for these

Table 6: The interactive impacts of the openness personality trait and various values on intergenerational socioeconomic mobility between father/mother and offspring

	(13f)	(14f)	(15f)	(18f)	(19f)	(110f)	(13m)	(14m)	(15m)	(18m)	(19m)	(110m)
D_education	0.869*** (0.109)	0.888*** (0.109)	0.883*** (0.109)	0.887*** (0.108)	0.889*** (0.108)	0.883*** (0.109)	0.986*** (0.112)	0.991*** (0.111)	1.000*** (0.111)	0.991*** (0.111)	0.988*** (0.111)	0.992*** (0.111)
Gender	0.606*** (0.209)	0.630*** (0.209)	0.616*** (0.208)	0.622*** (0.208)	0.617*** (0.208)	0.616*** (0.208)	0.388** (0.207)	0.403* (0.206)	0.407** (0.206)	0.397* (0.206)	0.395* (0.206)	0.405** (0.206)
Urban/Rural	-0.529** (0.232)	-0.595*** (0.230)	-0.590*** (0.230)	-0.600*** (0.230)	-0.592*** (0.230)	-0.592*** (0.231)	-0.733*** (0.237)	-0.734*** (0.233)	-0.747*** (0.234)	-0.719*** (0.233)	-0.729*** (0.233)	-0.732*** (0.234)
Openness	-0.020 (0.013)						-0.001 (0.013)					
*Hedonism								0.009 (0.012)				
Openness												
*Stimulation									0.014 (0.011)			
Openness										0.008 (0.012)		
*Self-direction												
Openness												
*Tradition												
Openness												
*Conformity												
Openness												
*Security												

Table 7: The interactive impacts of the conscientiousness personality trait and various values on intergenerational socioeconomic mobility between father/mother and offspring

	(21f)	(22f)	(28f)	(29f)	(210f)	(21m)	(22m)	(28m)	(29m)	(210m)
D_education	0.898*** (0.108)	0.878*** (0.109)	0.886*** (0.108)	0.875*** (0.108)	0.895*** (0.108)	0.999*** (0.111)	1.009*** (0.111)	1.009*** (0.111)	1.004*** (0.112)	1.028*** (0.112)
Gender	0.547*** (0.210)	0.575*** (0.208)	0.581*** (0.207)	0.523** (0.208)	0.596*** (0.207)	0.308 (0.207)	0.337* (0.204)	0.372* (0.204)	0.312 (0.205)	0.401** (0.204)
Urban/Rural	-0.662*** (0.230)	-0.614*** (0.231)	-0.600*** (0.230)	-0.646*** (0.230)	-0.675*** (0.233)	-0.809*** (0.234)	-0.767*** (0.233)	-0.703*** (0.233)	-0.759*** (0.232)	-0.801*** (0.234)
Conscientiousness	0.029** (0.014)					0.040*** (0.014)				
*Power							0.045*** (0.013)			
Conscientiousness		0.026** (0.012)						0.040*** (0.011)		
*Achievement									0.042*** (0.012)	
Conscientiousness			0.028** (0.011)	0.038*** (0.012)						0.044*** (0.012)
*Tradition										
Conscientiousness										
*Conformity										
Conscientiousness										
*Security										

Table 8: The interactive impacts of the extraversion personality trait and various values on intergenerational socioeconomic mobility between father/mother and offspring

	(33f)	(34f)	(35f)	(37f)	(39f)	(310f)	(33m)	(34m)	(35m)	(37m)	(39m)	(310m)
D_education	0.887*** (0.108)	0.890*** (0.108)	0.896*** (0.108)	0.876*** (0.108)	0.874*** (0.108)	0.900*** (0.108)	1.025*** (0.112)	1.006*** (0.112)	1.039*** (0.112)	1.002*** (0.111)	1.001*** (0.112)	1.023*** (0.112)
Gender	0.598*** (0.209)	0.574*** (0.207)	0.583*** (0.206)	0.599*** (0.207)	0.559*** (0.206)	0.626*** (0.208)	0.424** (0.206)	0.391* (0.205)	0.429** (0.204)	0.398* (0.204)	0.381* (0.204)	0.441** (0.205)
rban/Rural	-0.588** (0.232)	-0.636*** (0.230)	-0.633*** (0.229)	-0.695*** (0.233)	-0.659*** (0.230)	-0.684*** (0.233)	-0.812*** (0.237)	-0.791*** (0.233)	-0.807*** (0.233)	-0.892*** (0.236)	-0.782*** (0.232)	-0.804*** (0.234)
Extraversion	0.002						0.017					
*Hedonism												
Extraversion		0.014 (0.010)						0.024** (0.010)				
*Stimulation			0.015 (0.010)						0.029*** (0.010)			
Extraversion										0.032*** (0.011)		
Self-direction				0.022 (0.011)								
Extraversion					0.025** (0.011)						0.023** (0.011)	
*Benevolence												
Extraversion						0.026** (0.011)						0.024** (0.011)
*Conformity												
Extraversion												
*Security												

Table 9: The interactive impacts of the agreeableness personality trait and various values on intergenerational socioeconomic mobility between father/mother and offspring

	(41f)	(42f)	(46f)	(47f)	(49f)	(410f)	(41m)	(42m)	(46m)	(47m)	(49m)	(410m)
D_education	0.914*** (0.110)	0.904*** (0.110)	0.898*** (0.110)	0.911*** (0.111)	0.900*** (0.110)	0.912*** (0.109)	0.996*** (0.111)	0.990*** (0.111)	1.012*** (0.111)	0.989*** (0.111)	0.987*** (0.111)	0.998*** (0.111)
Gender	0.561*** (0.210)	0.606*** (0.210)	0.636*** (0.210)	0.642*** (0.210)	0.591*** (0.209)	0.635*** (0.211)	0.380* (0.207)	0.410** (0.206)	0.465** (0.206)	0.425** (0.207)	0.405** (0.206)	0.431** (0.208)
Urban/Rural	-0.567** (0.231)	-0.537** (0.232)	-0.577** (0.231)	-0.562** (0.232)	-0.569** (0.231)	-0.585** (0.233)	-0.729*** (0.235)	-0.721*** (0.234)	-0.731*** (0.234)	-0.778*** (0.236)	-0.730*** (0.234)	-0.747*** (0.235)
Agreeableness	0.007						0.001					
*Power												
Agreeableness		0.007 (0.006)						0.006 (0.006)				
*Achievement			0.014** (0.006)						0.021*** (0.006)			
Agreeableness												
*Universalism										0.012** (0.006)		
Agreeableness				0.012** (0.006)							0.005 (0.006)	
Benevolence					0.011 (0.006)							
Agreeableness						0.011* (0.006)						0.006 (0.006)
*Conformity												
Agreeableness												
*Security												

Table 10: The interactive impacts of the neuroticism personality trait and various values on intergenerational socioeconomic mobility between father/mother and offspring

	(59f)	(510f)	(59m)	(510m)
D_education	0.881*** (0.108)	0.886*** (0.108)	1.000*** (0.111)	1.007*** (0.111)
Gender	0.529** (0.213)	0.551*** (0.210)	0.347* (0.211)	0.365* (0.207)
Urban/Rural	-0.631*** (0.231)	-0.642*** (0.233)	-0.760*** (0.234)	-0.769*** (0.235)
Neuroticism*Conformity	-0.013 (0.009)		-0.012 (0.009)	
Neuroticism*Security		-0.012 (0.009)		-0.013 (0.009)

variables are highly significant in all equations. Specifically, the estimated coefficients for the variable reflecting *education gap* between parent and offspring are positive, highly significant, and have the highest absolute value of all estimated coefficients in all equations, indicating that improvement in education is an essential factor contributing to an upward socioeconomic mobility. Also, it has larger effect on mother-offspring mobility, which may indicate the gender inequality with limited opportunities for women in work in the past.

The *gender variable* also has positive impact on intergenerational mobility. This result shows that men outperform women in terms of advancement in socioeconomic status compared to their parents and implies the imbalance that still exists between the two genders. Moreover, this impact is more evident and has a larger magnitude for father-offspring mobility. This may be due to the fact that daughters make less progress from the previous generation than sons do.

Finally, the negative coefficients of the dummy variable reflecting *differences between urban and rural living conditions* prove the higher mobility between two generations in rural

areas, which may indicate the limitation in the past and the upswing at the present in working opportunities for people in the countryside. In particular, the relatively low position of rural women in the previous generation is highlighted by the higher and more significant coefficients of this dummy variable for the mobility between mothers and offspring.

5. Discussion and conclusion remarks

Intergenerational socioeconomic mobility is often attributed to cognitive factors like education, IQs, and heritability. Personality and values are believed to be heritable and stable over time, thus affecting the change in socioeconomic status among generations. This empirical study identifies the role of personality, values, and the interaction between them on the disparity in socioeconomic status between parents and children in Vietnam. Our research is based on a randomly-sampled survey of 450 students in different programs at NEU.

The estimation results support all of the six hypotheses formulated. Specifically, the results indicate that the personality traits of *openness* and *neuroticism* do not demonstrate any significant influences on mobility. The vague effect

of *openness* is nevertheless, suited to the literature; also, *neuroticism* tends to have a negative impact on mobility as expected. Meanwhile, all of the other traits, including *conscientiousness*, *extraversion*, and *agreeableness*, demonstrate significant positive relationships with upward socioeconomic mobility. Of which, the most marked and largest impact on mobility is seen in *conscientiousness*, whereas the most modest is in *agreeableness*. These findings are also highly consistent with the existing literature.

The interactive effects of personality traits and values on intergenerational socioeconomic mobility are then taken into consideration. *Conscientiousness* still proves its leading position as its interactive impacts surpass all other traits in magnitude and level of significance. Specifically, the interactive effects of conscientiousness and the value types of *conformity* and *security* are the most considerable, which are followed by *power*, *tradition*, and *achievement*. Meanwhile, regarding *extraversion*, the positive impacts of the interaction between this personality trait and the values of *benevolence*, *conformity* and *security* prove to be evident for both father and mother-offspring mobility, while *stimulation* and *self-direction* only have significant effects on mother-offspring mobility. Finally, in terms of *agreeableness*, its interactive influences with the values of *universalism* and *benevolence* are positive and highly significant, whereas those with *conformity* and *security*, though also significant, are lower in importance.

On the other hand, the empirical results indicate that improvement in *education* is an essential factor contributing to an upward socioeconomic mobility. Moreover, intergenerational mobility proves to be more substantial in *rural areas*, which implies the upswing in working opportunities for people in the countryside.

With regard to *gender inequality*, in all equations, most factors have considerably larger impacts on mother-offspring mobility compared to father-offspring mobility, especially in rural areas, which may indicate the relatively lower socioeconomic rank of women. Furthermore, the estimated coefficients for gender show that men also outperform women in terms of advancement in socioeconomic status compared to their parents and further imply the imbalance that still exists between the two genders.

The empirical results allow us to conclude that there is a structural socioeconomic mobility between generations in Vietnam. Upward socioeconomic mobility can be interpreted in several ways. *First* is the change due to cognitive factors. For this group of factors, the difference in educational level is important. It is obvious that in Vietnam, the parents of those surveyed, grew up during the wartime so they did not have as good access to education as their descendants. *Second* is the change due to the recent change in the concept of gender. In Vietnam, gender inequality has been gradually improved, so women have more opportunity for development. *Third* is the change due to heritable factors, which are rarely taken into account in the studies about intergenerational socioeconomic mobility. Besides IQ, personality traits may be the best proxied candidates for these factors because they are heritable and stable over time. On the other hand, personality is the behavioral manifestation of personal values. Thus, understanding about the impacts of personality, values, and interactions between them on intergenerational socioeconomic mobility is essential for parents to generate a healthy family education environment and for educational institutions to develop proper value-oriented educational programs for the sake of children's future.

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