Major and Authoritarian Personality: Based on a Survey of Peking University Undergraduates

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Abstract

"Authoritarian personality" is an important issue in political psychology research. There has been research showing that educational level significantly affects one's authoritarian personality, and significant different level of authoritarian personality among subjects of the same educationally level has also been observed. This research attempts to further study the influence of educational variables on authoritarian personality, to provide new insights into the relationship between the types of higher education and authoritarian personality levels, and to provide references for a better higher education design. Based on our survey carried out on undergraduates in Peking University, this paper employs general linear regression and DID to analyze the level of authoritarian personality of students of different major categories. The research shows that, compared with humanities and social science majors, science and engineering students tend to have a stronger authoritarian personality. This result implies that colleges and universities, when designing higher education schemes, need to carry out more liberal education in lower divisions, especially that on social sciences, to bring about more tolerant and rational citizens.

Keywords: Authoritarian Personality, Major Types, Undergraduate Education

1 Introduction

Since introduced into political psychology studies by Adorno (1950), authoritarian personality has been increasingly used as an explanatory variable or an outcome variable. The detrimental effect of authoritarian personality, especially its negative social consequences, has been widely discussed. Immanuel Kant pointed out that laziness and timidity lead to the lack of individual autonomy, which then gives rise to the wide acceptance of ecclesial and aristocratic rule (Kant, 1954/1784, p.384ff). Individuals with authoritarian personality often tend to resist the novel and the unfamiliar, to avoid deviations from tradition, and to foster reliance on authorities and animosity towards the unorthodox. Authoritarian personality is regarded as the cornerstone of authoritarian rule, an idea first proposed by Adorno et al. (1950). Among studies using authoritarian personality as the outcome variable, we agree with the widely-accepted notion that educational level has a significant impact on the level of authoritarian personality. However, we can still find that remarkable differences in the extent of one's authoritarian personality exist even among people of similar educational levels, especially undergraduates. Through preliminary qualitative observation, we argue that when people have already received high-level education, the disciplines of higher education may be a significant factor influencing their authoritarian personality levels.

Therefore, based on the findings of previous studies, this article tries to further understand the relationship between education and authoritarian personality. Specifically, we provide further evidence that, besides the conventional wisdom that people with higher education levels tend to have lower degrees of authoritarian personality, the types of higher education also account for the variation of authoritarian personality level. Theoretically, our research provides a new approach to answering what kind of people tends to hold authoritarian values. In a previous study on undergraduate education and social attitudes, Allgood et al. (2010) indicated that compared to students in other majors, economics students are more likely to possess a more conservative attitude. Nevertheless, in consideration of the high-level liberal education in the U.S., American high school students have already got some knowledge about their future majors, which could be a hidden variable overstating undergraduate

education's causal effect on social attitudes formation, as students may choose economics as their major because they hold more conservative attitude. However, in mainland China, due to the exam-oriented education, most Chinese students lack even the most basic knowledge about college majors, resulting in the choosing of majors being a largely arbitrary process, offering us a better chance to reveal the real effect of undergraduate education of different disciplines. Hence, this study also contributes to the understanding of the impact of different types of undergraduate education on people's social attitude. On the practical front, this article reveals the vital role of higher education, especially of social sciences education in shaping people's personalities, which leads to the need to reinvent major-based undergraduate education to yield not only more learned scholars but more tolerant and rational citizens.

2 Literature Review

What results in authoritarian personality has long been discussed in numerous literatures. Traditional mass psychology theory suggests that the masses are less rational, more emotional, and more passive than its individual members, which means they are more likely to obey orders of and be manipulated by authorities (Freud, 1922; Le Bon, 1897). These studies pointed out that individual thought or action can be influenced by one's social condition, but they cannot account for the continuous, stable impact of external environment on authoritarian personality level. Adorno et al. (1950) studied the correlation between racism and anti-democracy tendency, aggregating them into "authoritarian personality". Altemeyer (1988) argued that authoritarian personality is not one single personality type but a group of attitudes. He divided it into three core aspects: authoritarian submission (submission to existing, statutory authorities in society), authoritarian aggressiveness (hostility towards foreigners, minorities, or non-sympathizers of the authority, while considering it as being acquiesced or encouraged by authorities), and conventionalism (be highly reliant to social traditions that are accepted by existing authorities). However, this kind of studies is still more likely to explore the exact meaning of the concept than to convincingly clarify what external factors that shape authoritarian personality.

The main characteristics of authoritarian personality are narrow-mindedness, resistance

to novelties, averse to deviate from established norms. They lead to obdurateness and intransigence, submission to authorities, zealous obeisance to existing values, and aggression when the authority in question is perceived to be attacked.

Traditional views about external factors leading to authoritarian personality mainly point to two aspects – time and space, meaning one's life experience and social relations. Oesterreich (2005) suggested that when children are faced with conflicts that exceed their emotional or cognitive competence, they would submit to the orders and control of those providing them with certainty and comfort. The social constructivism view points out that authoritarian personality is the consequence of the industrial society in which demands on citizens to make difficult decisions exceed their ability. Authoritarian personality is not the particular consequence of a totalitarian society, but may be a typical feature of any highly specialized society.

Besides, sizeable literature has suggested the authoritarian personality is negatively correlated to education. Napier and Jost (2008) found extensive authoritarianism among groups with low educational and income levels, which the authors ascribed on intolerance towards others. Furthermore, Grabb (1976) pointed out that the best estimator for authoritarian personality is education, followed by cynicism and income. Peterson and Lane (2001) found a significant negative correlation between females' post-bachelor education plans and their authoritarian scores, while such links do not exist significantly among males. For the latter group, their authoritarian scores are related to their career plans, which may or may not include graduate education.

3 Theories and Hypotheses

We concur with the idea that educational levels exhibit a strong correlation with authoritarian personalities, but it fails to explain a great variance among those of the same (advanced) educational level. This paper is mainly concerned with this problem, to which our answer is the disciplines on which people receive their higher education, namely, engineering, natural sciences, humanities, and social sciences.

We hypothesise that different disciplines on which people receive their higher education

explain the variance of authoritarian levels among those of a similarly higher educational level, controlling for gender, age, income, birthplace, involvement with the Youth League and/or the CPC; etc. We further hypothesise that humanities and social sciences students would exhibit lower authoritarian levels than those of engineering and natural sciences. We believe that students of the latter disciplines are more likely to be concerned with their studies over social or political issues, resulting in a lack of individual opinions towards such issues, further leading to a natural tendency to favour the first opinion (that of the authority) when faced with divisive issues. On the other hand, humanities and social sciences inherently involve social issues, requiring students to actively contemplate on the issues and the multitude of related schools of thought before forming their own opinions, prompting increased tolerance towards diverse opinions and diminished reliance on the authority's narrative, both giving rise to a lower authoritarian level. Another possible explanation is that there exists widely accepted consensus based on the way engineering or natural science studies are conducted, shaping the way students deal with social issues, namely believing in an "ultimate truth" embodied by the authority, leading to authoritarian tendencies.

Also, Inglehart (2006) believes affiliation to a large organisation (e.g. factories) lead to authoritarian tendencies. Natural sciences and engineering students are often organised into hierarchical research groups such as laboratories, which requires dependency on such hierarchical organisations, possibly resulting in stronger authoritarian personalities.

Hypothesis 1: People of the same higher educational level vary in authoritarian levels due to the different disciplines of education they receive.

We have also noted that our subjects, Peking University undergraduates, receive "military training" at different times. [["Military training" is a distinctively Chinese practice aiming to cultivate students' obedience to authorities by means of military-style training, but without serious combat training. The practice began in 1989, lasting for a whole year at that time, gradually reduced to about two weeks in recent years.]] Those enrolled in 2018 and later receive military training right after enrolment, while those enrolled before 2018 did not until one year into their undergraduate studies. We believe the difference in timing may alter their studies' effect on their dependency and

obedience towards authorities, hence on authoritarian personalities. We consider the formation of authoritarian personalities strongly depends on the order of influences. If students receive their undergraduate education first, they will exhibit more diversity in authoritarian levels, while those who receive homogeneous military training first will show less variety.

Hypothesis 2: The timing of military training will affect partakers' authoritarian levels.

It is common practice for Chinese undergraduate students to apply for membership in the CPC. We call the process "institutionalisation" since being admitted into the CPC usually implies entry to a highly institutionalised environment. Those who apply for CPC membership early on may: 1) self-identify as a vanguard for the authority, and 2) have heightened identification with the authority as a result of the "political education" accompanied by CPC membership application. Both factors are linked to authoritarian tendencies.

Hypothesis 3: Institutionalisation is positively correlated with authoritarian levels.

4 Measurement and Modelling

4.1 Data Acquisition

4.1.1 Sampling Survey Design

We conducted a probabilistic cluster sampling design on Yanyuan campus of Peking University, having obtained the building numbers and room numbers of all undergraduate dormitories

First, we make a sampling frame for the population sample. Considering not every room number in a dormitory building points to a dormitory (some of them point to toilets, bathrooms, or common rooms), we studied the floor plans for each of the randomly selected dormitory buildings and renumbered them accordingly. Then we use systematic sampling with random starting points. Finally, we restrict our subjects to "regular" full time undergraduates (setting aside, for example, exchange students) in the sampled dormitories. We do not replace subjects who refuses to take our survey.

The sample size is 125 dormitories * 4 students/dormitory = 500 students. We expect the response rate to be 60%, so the expected sample size is 500*60%=288.

We assert that our sampling design is practically equiprobable with regard to dormitories. Since undergraduates of the same major and the same year are assigned to adjacent rooms, the ratio of any major in the sample is close to that in the population.

Although we do not replace individual subjects if they refuse to take our survey, we replace a dormitory if all four residents reject.

4.1.2 Survey and Data Collection

The survey lasted two weeks (December 9, 2019 to December 22, 2019). 10 surveyors conducted the survey according to the sampling design. Each surveyor interviewed an average of about 50 people.

A total of 253 valid questionnaires were collected, with an response rate of 52.7%. From the gender, the male sample is 127, accounted for 48.47%, and the female sample is 135, accounted for 51.53%. From professional view, the science departments sample is 88, accounted for 34.11%, the engineering departments sample is 27, accounted for 10.47%, the humanities departments sample is 41, accounted for 15.89%, and social science departments sample is 102, accounted for more than 39.53%. In terms of grade, 94 samples were collected from freshmen, accounting for 35.88%; 69 samples were collected from sophomores, accounting for 26.34%; 48 samples were collected from juniors, accounting for 18.32%; and 51 samples were collected from seniors, accounting for 19.47%. The gender and major distributions match those of the population. Although freshman subjects are slightly overrepresented, we do not believe it will introduce any significant bias since we control for years in college.

4.2 Explanatory Variable

Considering that education significantly affect the level of authoritarian personality, our sample is generally limited to full-time undergraduate students in Peking University,

resulting in a solid control for respondents' (relatively high) education level. Holding levels of education constant, our study deals with the relationship between different disciplines of undergraduate education and authoritarian personality. Meanwhile, as the subjects of this study are limited to Peking University undergraduates, the timing of military training is also included as an explanatory variable. Among them, the military trainings of the '22 students (sophomore at the time of survey) and '23 (freshman) were carried out before their freshman year respectively, while those of '20 (senior) and '21 (junior) were carried out after their respective freshman year.

The primary explanatory variable "undergraduate education discipline" is measured by a categorical variable, accepting "engineering", "natural sciences", "humanities", and "social sciences". Specifically, according to international norms and taking into account of actual courses the departments in question offer, we merge students from Science Department and Medicine Department [2]into "science", merge those from Information and Engineering Sciences Department into "engineering", merge those from the Humanities Department of each courtyard into "humanities", merge those from Social Sciences Department and Economics and Management Department of each courtyard into "social science", and classify the students of the Yuanpei Collage according to their major to the corresponding subject categories.

4.3 Outcome Variable

Our outcome variable is the level of authoritarian personality. We use the scale developed by Ma and Lu (2019) to measure respondents' authoritarian personality. We measure three dimensions of authoritarian personality - obedience to authority, attitude toward political minorities, and conformity to traditional values. Five statements are asked to be evaluated — "those who challenge the authority of the government or existing social order must be severely punished", "a government is like a patriarch, and everyone should obey them", "obedience and respect for the authority is the most important virtue children should learn", "respecting our Confucian traditional culture

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[2] Only first-year undergraduates of Peking University Medical Science Department live in The Yanyuan Campus of Peking University, which belongs to our survey. Moreover, the curriculum of first-year students in Medical Department is mainly mathematics, physics, biology, chemistry and other basic courses of science, so it is reasonable to classify it as "science".

and customs is important", and "even if the parents' requirements are unreasonable, children should obey them". The attitudes towards the five statements act as proxies to "authoritarian personality". The more favorable attitude one holds toward any of the statements, the higher level of authoritarian personality the interviewee is believed to possess. According to Ma and Lu (2019)'s established scale for authoritarian personality, those five variables measure the same latent variable "level of authoritarian personality". The average scoring of the five statements reflects the level of authoritarian personality of an interviewee. Ma and Lu (2019)'s scale refers to Altmaier's RWA scale, so it compares well with mainstream scales for authoritarian personalities.

4.4 Control Variables

The control variables in this study include basic demographic variables such as gender and age, annual household income in 2018, father's education level, upbringing environment (countryside, small town, or city; high-income provinces, middle-income provinces, or low-income provinces), whether or not they held positions in the school branch of Communist Youth League Committee, whether or not they held positions in CPC organizations, their willingness to join CPC and whether they are already CPC members.

The reason for controlling for family income level is that it is related to economic conditions, which may be related to family education and thus may indirectly influence the formation of authoritarian personality.

Controlling for father's education level, on the other hand, is based primarily on socioeconomic considerations. We believe that although the contemporary society has achieved much for equality between genders, the education level of the father in a family can still largely reflect the family's socioeconomic status, and the status, in turn, will also affect the level of education that the respondent can receive before university and the general characteristics of one's upbringing, thus affecting the level of authoritarian personality.

The main reason for controlling for provinces of origin is that, due to economic or cultural differences across regions, the influence of geographical factors on authoritarian personality (e.g. political tolerance and political stance) cannot be ruled out.

Students holding positions at the school branch of the Communist Youth League of China, that of the Communist Party of China, or their affiliates may have been subject to political indoctrination for a long time. They may also have experienced the extent of authoritarianism in Party or League hierarchies firsthand, influencing the level of authoritarian personality. So holding positions in Party or League affiliates is included as control variables.

In contemporary China, an undergraduate student choosing to join CPC may be a self-selective process, and those more willing to join the Party tend to be more sympathetic to the current system and more likely to accept political propaganda, and thus may have a higher level of authoritarian personality. That justifies including "willingness to join the Party" and "Party membership status" as control variables.

4.5 Quantitative Models

The statistical models employed in this paper are as follows:

$$A_i = \mu + \Sigma\,(\alpha_m * M_{mi}) * U_i + \beta * E_i + \varepsilon_i$$
$$K_i = \lambda + \kappa * M_{mi} + \upsilon_i$$

A is the level of authoritarian personality calculated through the scale; M_1 through M_4 are dummy variables for the four professional education categories (natural science, engineering, humanities, and social science), social science being omitted in calculation to avoid multicollinearity; *U* is the time of participation in undergraduate education; and *E* is a dummy variable for whether the military training was in the summer before the freshman year.

4.6 Causality Test

In the model above, the major variable is fixed for the majority of undergraduate students since entering college. Although some students may transfer to another department, it will not affect the exogeneity of this study because it happens only in a small proportion of students. Thus, the relationship between major and authoritarian personality level is unidirectional, i.e., the type of professional education can influence the authoritarian personality level, but the authoritarian personality level cannot influence the type of professional education.

However, we cannot rule out the possibility of reverse causality. It is still possible that the level of authoritarian personality influences students' major by influencing their choice of major prior to university admission, i.e., there is still the possibility that, prior to undergraduate education, students with higher levels of authoritarian personality are more likely to choose certain disciplines. Thus, we introduce into our model variables measuring openness and conscientiousness from the Big Five personality.

We have noticed that research on the Big Five personality traits is becoming mainstream in the field of political psychology, and Goldberg (1989) was probably the first to use the term "Big Five". He argues that any model that constructs individual differences is likely to include dimensions similar to the "Big Five" to some extent, and that such five dimensions may also provide a theoretical framework for previous research on personality attributes. Digman (1990) define the "Big Five" as follows: I: Extraversion/introversion (Surgency); II: Friendliness/hostility (Agreeableness); III: Conscientiousness (Will); IV: Neuroticism (Emotional Stability); V: Intellect (Openness). Bouchard and McGue (2003) state that the Big Five personality traits are highly innate and only partially influenced by early or later life experiences. This implies that the Big Five personality traits are better explanatory variables in terms of exogeneity.

Bouchard (2009) argues that the "neuroticism" dimension in the P-E-N model, is theoretically related to authoritarianism. He explains that neuroticism is linked to religious, sexual, and punitive attitudes that are central to the concept of authoritarianism. Verhulst et al. (2010) argue that authoritarianism, traditional

conservatism and spiritualism are intertwined, and Gerber et al. (2011) point out the relevance of the Big Five personality model to political participation. Sibley (2012) and Nicol and France (2016) point out that openness and conscientiousness in the Big Five personality model can influence right-wing authoritarianism (RWA): low levels of openness and high levels of conscientiousness can affect right-wing authoritarianism (RWA) by reinforcing the idea that social cohesion and collective security, providing a threat-driven motivation for right-wing authoritarianism. Oskarsson and Widmalm (2016), based on a survey of Bhopal, India and Lahore, Pakistan, find that all Big Five personalities -- in one or both of these countries -- are associated with political tolerance -- the willingness of the individuals to grant political rights to those they do not have a favorable opinion. Those studies, while mostly using personality traits as independent variables, point to significant correlations between personality traits and political participation/political attitudes/political behavior.

Thus, as discussed in many of the studies mentioned above, the Big Five personality is highly innate and only partially influenced by early and somewhat later life experiences, thus being well exogenous; Openness and Conscientiousness in the Big Five personality, in turn, affects authoritarian personality levels. Therefore, introducing them into the model as control variables can allow us to verify whether there are significant differences in the dimensions of Openness and Conscientiousness in the Big Five personality among students of different professional categories, and thus indirectly verify whether there are significant differences in their underlying levels of authoritarian personality. We argue that if the variables measuring Openness and Conscientiousness in the model are not significantly different among disciplines, it can be argued that there are no significant differences in the "innate" authoritarian personality levels of students in different disciplines, and that the differences in their post-college authoritarian personality levels arise from differences in their undergraduate education.

The BFI-10 scale introduced by Rammstedt and John (2007) was used in this study to measure various dimensions of the Big Five personality, including 10 variables: "is reserved," "is generally trusting," "tends to be lazy," "is relaxed, handles stress well," "has few artistic interests," "is outgoing, sociable," "tends to find fault with others,"

"does a thorough job," "gets nervous easily," "has an active imagination." "has few artistic interests" and "has an active imagination" were used to measure Openness; "tends to be lazy" and "does a thorough job" were used to measure Conscientiousness.

5 Results

5.1 Master Model

Table 1 and Table 2 show the mean and difference of the authoritarian personality level among subjects of different majors. Respondents majoring in social sciences had the highest average score (hence the lowest level) of authoritarian personality at 0.63 (rounded to two decimal places), and those majoring in engineering scored on average 0.39; the average score of natural sciences was higher than that of humanities. Therefore, in terms of average authoritarian personality levels, the four disciplines are ranked from the highest to the lowest is: engineering, natural sciences, humanities, and social sciences. The result is consistent with the expectations of the hypothesis in this article.

Table 1   The Mean of the Authoritarian Personality Level in Different Majors

	Mean	Std. Err.	95%Conf. Interval	
Natural Sciences	0.511364	0.067409	0.3786194	0.6441079
Engineering	0.392593	0.152279	0.0927199	0.6924653
Humanities	0.585366	0.090092	0.407953	0.7627787
Social Sciences	0.633333	0.059447	0.5162681	0.7503985

Table 2   The Difference of the Authoritarian Personality Level in Different Majors

	Difference	Std. Err.	Unadjusted 95%Conf. Interval	
Engineering vs Natural Sciences	-0.11877	0.138582	-0.3916872	0.1541451
Humanities vs Natural Sciences	0.074002	0.119109	-0.1605638	0.3085683
Social Sciences vs Natural Sciences	0.12197	0.091647	-0.0585144	0.3024538
Humanities vs Engineering	0.192773	0.156121	-0.1146836	0.5002301
Social Sciences vs Engineering	0.240741	0.136331	-0.027742	0.5092235
Social Sciences vs Humanities	0.047968	0.116482	-0.1814252	0.2773602

The basic regression part of this article adopts ordinary least squares (OLS) analysis, with authoritarian personality scale scores, major categories, length of undergraduate education, the timing of military training, and channels to acquire socio-political

information as the main variables. After controlling for gender, place of origin, father's education level, CPC membership status, and League position status, we further studied the influence of the professional education received by middle school students on their authoritarian personality tendency. Considering whether to participate in military training in advance in the model has an impact on the "major category's effect on the level of authoritarian personality", the first-order difference method is used to test whether the military training in advance and its cross-term havs an influence on the explanatory variable.

First, as for the basic regression results, a total of five models have been selected for comparison. Model 1 regresses the stage of joining the party on gender, growth environment, father's level of education, and whether he is a student in the school league committee. The results show that, controlling for other variables, there is a significant linear negative correlation between the state of party membership and the authoritarian personality level, with a regression coefficient of -0.0919 ($p<0.001$), which is consistent with the viewpoint of hypothesis 3 above. The students who are closer to becoming Party members have received a certain degree of longer political education, and are more likely to be in favor of the authority and and policy measures, have a high degree of loyalty and trust in the Party, thus having a stronger authoritarian personality tendency.

Taking into account the differences in the level of authoritarian personality of students in different major categories before entering university, Model 2 adds the variables indicating the conscientiousness dimension in the Big Five Personality Model variable group, but the results are not statistically significant. The test shows that the conscientiousness in the Big Five personality model has no significant impact on the authoritarian personality level, which can indirectly prove that there is no significant difference in the distribution of the authoritarian personality level of students of different majors before entering the university. At the same time, according to the regression results in the table, the significant linear negative correlation between the Party member admission stage and authoritarian personality level remains unchanged, but the correlation coefficient has decreased. This further verifies the point of hypothesis 3 and shows that we need to pay more attention to the impact of

institutionalization on the level of authoritarian personality.

Table 3　The Influence of Major on the Level of Authoritarian Personality

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.016	0.041	-0.012	0.043
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.027	-0.019	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.014	-0.012	-0.016	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.095***	-0.092***	-0.090***	-0.089***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.061	0.036	0.048	0.029
	(0.040)	(0.040)	(0.038)	(0.041)	(0.040)
BFI Conscientiousness 2		-0.003	0.003	-0.006	0.001
		(0.018)	(0.017)	(0.018)	(0.018)
Engineering			0.020		0.020
			(0.056)		(0.056)
Humanities			0.082*		0.079*
			(0.047)		(0.047)
Social Sciences			0.114***		0.112***
			(0.037)		(0.037)
Grade				0.017	0.009
				(0.015)	(0.014)
Constant term	3.517***	3.516***	3.413***	3.456***	3.383***
	(0.080)	(0.080)	(0.081)	(0.095)	(0.094)
Adjusted R^2	0.109	0.105	0.120	0.106	0.117
Number of obs	238	238	234	238	234

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Model 3 in Table 3 adds the core variable of major category on the basis of Model 2, which is divided into four categories: natural sciences, engineering, humanities and social sciences – the focus of this research. The major category has a significant correlation with the outcome variable. According to the data in Table 3, compared with the natural sciences majors, the regression coefficient of the authoritarian personality score of the social science major is 0.114 (0.1% significance level), and the regression coefficient of discipline is 0.082　(). This means that students majoring in natural sciences are more likely to have authoritarian personality tendencies than students majoring in social sciences and humanities, and are easier to obey and maintain

authority. This further validates our conjecture that major categories have a significant impact on the level of authoritarian personality. However, the regression results of engineering majors are not significant, which may be caused by too small sample size from engineering majors.

Model 4 adds the variables of students' years of undergraduate education on the basis of Model 2, but there is no significant correlation between the years of education they received and authoritarian personality tendency ($p>0.05$). Under the controlling for other variables, the years of university education does not significantly affect the authoritarian personality level of students. Although students majoring in natural sciences have a stronger authoritarian personality tendency than social sciences students, this tendency will not be strengthened by the increase of the length of education. At the same time, we notice that after adding the variable of years of education, the significance of the negative linear correlation between the membership of the party and the outcome variable is significantly reduced. This may be due to the multicollinearity between the years of education and the CPC membership status.

Model 5 adds the variables of the number of years of undergraduate education of students on the basis of Model 3, and only the party membership status and major category have a significant correlation with the outcome variable. By analyzing the regression results of the above five models, Party membership status and the major category have always maintained a significant correlation with the outcome variable, which is basically consistent with the theoretical hypothesis. It shows that the higher the degree of institutionalization, undergraduate students majoring in natural sciences and engineering are more inclined to obey the arrangements of the contemporary authoritative system, and have a higher authoritarian personality level.

By controlling variables of the previous five models, Table 4 bases on it and further distinguishes students's League position status and finds that the variable "whether you serve as student assistants in the school league committee, party or School Communist Youth League Committee" in Model 1, Model 2, and Model 4 is significant ($p<0.05$), but after adding the major category variable to Model 3 and Model 5, the significance disappears. It means that the influence of the added variable is not the main influencing

factor in this research, but it needs to be further considered whether there is an endogenous connection between them.

Table 4   The Influence of League Position Status on the Level of Authoritarian Personality

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.014	-0.015	0.039	-0.011	0.040
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.025	-0.024	-0.018	-0.018	-0.015
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.016	-0.016	-0.014	-0.018	-0.015
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.003	0.003	0.003	0.003	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.101***	-0.100***	-0.095***	-0.096***	-0.092***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status2	0.115**	0.116**	0.073	0.105**	0.068
	(0.047)	(0.047)	(0.046)	(0.048)	(0.047)
BFI Conscientiousness 2		-0.007	-0.000	-0.009	-0.002
		(0.018)	(0.017)	(0.018)	(0.018)
Engineering			0.020		0.019
			(0.056)		(0.056)
Humanities			0.075		0.074
			(0.047)		(0.047)
Social Sciences			0.105***		0.103***
			(0.037)		(0.038)
Grade				0.015	0.008
				(0.015)	(0.014)
Constant term	3.522***	3.520***	3.422***	3.467***	3.395***
	(0.079)	(0.079)	(0.081)	(0.094)	(0.094)
Adjusted R^2	0.122	0.119	0.126	0.119	0.123
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Table 5 further explains the influence of conscientiousness and openness in the Big Five personality model on the outcome variables. The results again show that conscientiousness and openness have no significant effect on the outcome variables.

Table 5   The Influence of Conscientiousness and Openness on the Level of Authoritarian

Personality

	Model 1	Model 2	Model 3	Model 4
Gender	0.042	0.041	0.043	0.035
	(0.033)	(0.033)	(0.033)	(0.034)
Place of origin	-0.017	-0.015	-0.017	-0.017
	(0.026)	(0.026)	(0.026)	(0.026)
Growth environment	-0.013	-0.014	-0.014	-0.012
	(0.015)	(0.015)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.001
	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.090***	-0.088***	-0.087***	-0.089***
	(0.016)	(0.016)	(0.017)	(0.016)
League position status1	0.031	0.030	0.025	0.032
	(0.039)	(0.039)	(0.040)	(0.039)
BFI Conscientiousness 2	0.001			
	(0.018)			
Time of military training	-0.017	-0.018	-0.021	-0.017
	(0.032)	(0.031)	(0.032)	(0.031)
Engineering	0.021	0.018	0.019	0.025
	(0.056)	(0.056)	(0.056)	(0.056)
Humanities	0.082*	0.083*	0.075	0.079*
	(0.047)	(0.047)	(0.047)	(0.047)
Social Sciences	0.114***	0.115***	0.110***	0.112***
	(0.037)	(0.037)	(0.037)	(0.037)
BFI Conscientiousness 1		-0.014		
		(0.014)		
BFI Openness 1			0.013	
			(0.014)	
BFI Openness 2				0.014
				(0.016)
Constant term	3.415***	3.398***	3.408***	3.411***
	(0.081)	(0.083)	(0.082)	(0.081)
Adjusted R^2	0.117	0.121	0.120	0.120
Number of obs	234	234	234	234

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

5.2 Discussion on the timing of military training

We believe the timing (before undergraduate study or after the freshman year) will alter the effect of different disciplines on the authoritarian scoring, i.e.,

$$y_i = \mu_{i0} + \Sigma\ \beta_{ij} * Grade + \Sigma\ \gamma_{ij} * Grade * mtt$$

y denotes the current score on the authoritarian scale, and μ_0 is the score before undergraduate education. D_i is a series of dummy variables that reflect the disciplines of study. mtt is another dummy variable, being 0 if military training was scheduled before the freshman year, and 1 otherwise.

After conducting heteroskedasticity-robust linear regressions on each groups of disciplines and testing for H_0: γ_j =0, we find the null hypothesis cannot be rejected unless division1 == 1 (the subject studies natural science). Hence, no apparent conclusion can be drawn on the hypothesis.

6 Conclusion and Discussion

Based on a sample survey of Peking University undergraduates and a data analysis of the survey results, we tested the hypothesis that professional education in higher education will affect the level of authoritarian personality. The results show that after controlling for variables such as gender, growth environment, father's level of education, the stage of joining the CPC, and whether or not holding positions in the school league committee, college students receiving different professional education will have an impact on their level of authoritarian personality. Specifically, compared with natural sciences and engineering, social science and humanities students have a lower level of authoritarian personality overall. This result is more consistent with our theoretical hypothesis. However, the length of undergraduate education has no significant impact on the level of authoritarian personality. After excluding the influence of the time of military training (summer vacation before enrollment or summer vacation for the first year of college) on this variable, we believe that the authoritarian personality level of college students may be affected by the latter at the entry stage of undergraduate education after the freshman year. It is basically finalized, and no significant changes will occur in the following years.

In addition, the impact of CPC or its youth branch participation on the level of authoritarian personality is significant before the major category variable is added, but no longer so afterwards. This shows that undergraduate education better explains the difference in the level of authoritarian personality than CPC (or its youth branch)

participation, which also provides support for our hypothesis. It is worth noting that Party member admission stage on the level of authoritarian personality is highly significant from beginning to end of undergraduate education: getting closer to party membership corresponds to a higher level of authoritarian personality. We believe that this may be related to the self-selection of joining the Party, that is, people with a higher level of authoritarian personality may be more inclined to join the Party.

Of course, there are still many problems in this study. The most prominent issue is the causal relationship between undergraduate education and the level of authoritarian personality: it may be that the difference in the level of authoritarian personality that leads to differences in students' major choices. In response to this problem, based on previous studies, we have added two dimensions of conscientiousness and openness that affect the level of authoritarian personality in the regression model. Since the Big Five personality has a certain degree of innateness, adding it to the model can better solve the endogenous problem of the authoritarian personality level. The regression results show that after controlling for major category variables, the variables of conscientiousness and openness are not significant. This shows that students of different majors meet the randomness of the innate tendency of authoritarian personality, so it can be considered that the difference in undergraduate education leads to the difference in the level of authoritarian personality, rather than the opposite. We admit that this causality test is still not perfect enough, so we will measure the authoritarian personality level of high school students before they are divided into subjects in the follow-up research, so as to provide a more reliable test for the causality in the conclusion of this article.

Secondly, this study selects undergraduates from Peking University as survey subjects, which might undermine the universality and generalizability of this article. We believe that taking undergraduates from Peking University as the survey object does not affect the universality of the conclusions of this article. The core issue of this research is the influence of professional education on the level of authoritarian personality in higher education. In theory, the higher the implementation level of undergraduate education and the stronger the learning ability of students, the more significant the impact of professional education on students will be. Peking University, as China's top multi-

disciplinary comprehensive university with a concentrated source of high-quality students, can provide the best domestic undergraduate professional education in natural sciences, engineering, social science, and humanities. Compared with other universities, Peking University's undergraduates also more adept at studying. Taking these two factors into account, the selection of undergraduates from Peking University as the survey subjects can more significantly highlight the impact of undergraduate education on students' authoritarian personality. At the same time, Peking University has inclusive academic traditions, which eliminate the interference of the campus "culture" on the effect of professional education and be conducive to showing the net effect of undergraduate education on the level of authoritarian personality. In summary, the selection of undergraduates from Peking University as the subjects of investigation will not only undermine the generality of the research conclusions.

In short, the basic conclusion of this article is: undergraduate education has an impact on the level of authoritarian personality, and social science and humanities students tend to have a lower level of authoritarian personality than natural sciences and engineering students. This discovery makes up for the insufficiency of the existing research on the relationship between education and authoritarian personality, and advances this relationship to the level of the relationship between specific education types and authoritarian personality. The findings of this research also have implications for the design of higher education: if a lowered level of authoritarian personality of higher education recipients as a whole is desirable, general education can be made more extensively in the lower grades of universities to this end, especially strengthening social sciences, so that it can play a role in reducing the level of authoritarian personality.

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Appendix

Attached Table 1

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.016	0.041	-0.012	0.043
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.027	-0.019	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.014	-0.012	-0.016	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.095***	-0.092***	-0.090***	-0.089***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.061	0.036	0.048	0.029
	(0.040)	(0.040)	(0.038)	(0.041)	(0.040)
BFI Conscientiousness 2		-0.003	0.003	-0.006	0.001
		(0.018)	(0.017)	(0.018)	(0.018)
Engineering			0.020		0.020
			(0.056)		(0.056)
Humanities			0.082*		0.079*
			(0.047)		(0.047)
Social Sciences			0.114***		0.112***
			(0.037)		(0.037)
Grade				0.017	0.009
				(0.015)	(0.014)
Constant term	3.517***	3.516***	3.413***	3.456***	3.383***
	(0.080)	(0.080)	(0.081)	(0.095)	(0.094)
Adjusted	0.109	0.105	0.120	0.106	0.117
Number of obs	238	238	234	238	234

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Attached Table 2

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.018	0.040	-0.013	0.042
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.025	-0.017	-0.018	-0.014
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.015	-0.013	-0.018	-0.015
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.004	0.004	0.003	0.003
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.092***	-0.089***	-0.087***	-0.086***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.060	0.034	0.048	0.028
	(0.040)	(0.040)	(0.038)	(0.041)	(0.039)
BFI Conscientiousness 1		-0.019	-0.014	-0.019	-0.015
		(0.015)	(0.014)	(0.015)	(0.014)
Engineering			0.017		0.017
			(0.056)		(0.056)
Humanities			0.083*		0.081*
			(0.047)		(0.047)
Social Sciences			0.114***		0.113***
			(0.037)		(0.037)
Grade				0.017	0.010
				(0.015)	(0.014)
Constant term	3.517***	3.495***	3.396***	3.437***	3.364***
	(0.080)	(0.081)	(0.082)	(0.095)	(0.094)
Adjusted R^2	0.109	0.111	0.123	0.112	0.121
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 3

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.012	0.042	-0.006	0.044
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.028	-0.021	-0.021	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.014	-0.013	-0.017	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.002	0.002	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.092***	-0.089***	-0.087***	-0.086***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.054	0.030	0.041	0.023
	(0.040)	(0.040)	(0.039)	(0.042)	(0.040)
BFI Openness 1		0.016	0.012	0.017	0.013
		(0.014)	(0.014)	(0.014)	(0.014)
Engineering			0.019		0.018
			(0.056)		(0.056)
Humanities			0.075		0.072
			(0.047)		(0.047)
Social Sciences			0.110***		0.107***
			(0.037)		(0.037)
Grade				0.018	0.011
				(0.015)	(0.014)
Constant term	3.517***	3.502***	3.405***	3.439***	3.369***
	(0.080)	(0.081)	(0.081)	(0.095)	(0.094)
Adjusted R^2	0.109	0.110	0.122	0.112	0.121
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 4

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.020	0.034	-0.015	0.036
	(0.031)	(0.031)	(0.034)	(0.032)	(0.034)
Place of origin	-0.027	-0.027	-0.019	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.013	-0.011	-0.015	-0.013
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.002	0.002	0.001	0.001
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.094***	-0.090***	-0.090***	-0.088***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.061	0.036	0.050	0.029
	(0.040)	(0.040)	(0.038)	(0.041)	(0.039)
BFI Openness 2		0.010	0.014	0.010	0.014
		(0.017)	(0.016)	(0.017)	(0.016)
Engineering			0.024		0.024

	Model 1	Model 2	Model 3	Model 4	Model 5
			(0.056)		(0.056)
Humanities			0.079*		0.077
			(0.047)		(0.047)
Social Sciences			0.111***		0.110***
			(0.037)		(0.037)
Grade				0.017	0.009
				(0.015)	(0.014)
Constant term	3.517***	3.513***	3.408***	3.457***	3.378***
	(0.080)	(0.080)	(0.081)	(0.094)	(0.093)
Adjusted R^2	0.109	0.106	0.122	0.107	0.120
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 5

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.016	0.041	-0.012	0.043
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.027	-0.019	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.014	-0.012	-0.016	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.095***	-0.092***	-0.090***	-0.089***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.061	0.036	0.048	0.029
	(0.040)	(0.040)	(0.038)	(0.041)	(0.040)
BFI Conscientiousness 2		-0.003	0.003	-0.006	0.001
		(0.018)	(0.017)	(0.018)	(0.018)
Engineering			0.020		0.020
			(0.056)		(0.056)
Humanities			0.082*		0.079*
			(0.047)		(0.047)
Social Sciences			0.114***		0.112***
			(0.037)		(0.037)
Grade				0.017	0.009
				(0.015)	(0.014)
Constant term	3.517***	3.516***	3.413***	3.456***	3.383***
	(0.080)	(0.080)	(0.081)	(0.095)	(0.094)
Adjusted R^2	0.109	0.105	0.120	0.106	0.117
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 6

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.018	0.040	-0.013	0.042
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.025	-0.017	-0.018	-0.014
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.015	-0.013	-0.018	-0.015
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.004	0.004	0.003	0.003
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.092***	-0.089***	-0.087***	-0.086***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.060	0.034	0.048	0.028
	(0.040)	(0.040)	(0.038)	(0.041)	(0.039)
BFI Conscientiousness 1		-0.019	-0.014	-0.019	-0.015
		(0.015)	(0.014)	(0.015)	(0.014)
Engineering			0.017		0.017
			(0.056)		(0.056)
Humanities			0.083*		0.081*
			(0.047)		(0.047)
Social Sciences			0.114***		0.113***
			(0.037)		(0.037)
Grade				0.017	0.010
				(0.015)	(0.014)
Constant term	3.517***	3.495***	3.396***	3.437***	3.364***
	(0.080)	(0.081)	(0.082)	(0.095)	(0.094)
Adjusted R^2	0.109	0.111	0.123	0.112	0.121
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 7

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.012	0.042	-0.006	0.044
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.027	-0.028	-0.021	-0.021	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.014	-0.013	-0.017	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.002	0.002	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.092***	-0.089***	-0.087***	-0.086***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.054	0.030	0.041	0.023
	(0.040)	(0.040)	(0.039)	(0.042)	(0.040)
BFI Openness 1		0.016	0.012	0.017	0.013
		(0.014)	(0.014)	(0.014)	(0.014)
Engineering			0.019		0.018
			(0.056)		(0.056)
Humanities			0.075		0.072
			(0.047)		(0.047)
Social Sciences			0.110***		0.107***
			(0.037)		(0.037)
Grade				0.018	0.011
				(0.015)	(0.014)
Constant term	3.517***	3.502***	3.405***	3.439***	3.369***
	(0.080)	(0.081)	(0.081)	(0.095)	(0.094)
Adjusted R^2	0.109	0.110	0.122	0.112	0.121
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 8

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.016	-0.020	0.034	-0.015	0.036
	(0.031)	(0.031)	(0.034)	(0.032)	(0.034)
Place of origin	-0.027	-0.027	-0.019	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.014	-0.013	-0.011	-0.015	-0.013
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.002	0.002	0.002	0.001	0.001
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.095***	-0.094***	-0.090***	-0.090***	-0.088***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status1	0.061	0.061	0.036	0.050	0.029
	(0.040)	(0.040)	(0.038)	(0.041)	(0.039)
BFI Openness 2		0.010	0.014	0.010	0.014
		(0.017)	(0.016)	(0.017)	(0.016)
Engineering			0.024		0.024
			(0.056)		(0.056)
Humanities			0.079*		0.077
			(0.047)		(0.047)
Social Sciences			0.111***		0.110***
			(0.037)		(0.037)
Grade				0.017	0.009
				(0.015)	(0.014)
Constant term	3.517***	3.513***	3.408***	3.457***	3.378***
	(0.080)	(0.080)	(0.081)	(0.094)	(0.093)
Adjusted R^2	0.109	0.106	0.122	0.107	0.120
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 9

	Model 1	Model 2	Model 3	Model 4
Gender	0.042	0.041	0.043	0.035
	(0.033)	(0.033)	(0.033)	(0.034)
Place of origin	-0.017	-0.015	-0.017	-0.017
	(0.026)	(0.026)	(0.026)	(0.026)
Growth environment	-0.013	-0.014	-0.014	-0.012
	(0.015)	(0.015)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.001
	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.090***	-0.088***	-0.087***	-0.089***
	(0.016)	(0.016)	(0.017)	(0.016)
League position status1	0.031	0.030	0.025	0.032
	(0.039)	(0.039)	(0.040)	(0.039)
BFI Conscientiousness 2	0.001			
	(0.018)			
Time of military training	-0.017	-0.018	-0.021	-0.017
	(0.032)	(0.031)	(0.032)	(0.031)
Engineering	0.021	0.018	0.019	0.025
	(0.056)	(0.056)	(0.056)	(0.056)
Humanities	0.082*	0.083*	0.075	0.079*
	(0.047)	(0.047)	(0.047)	(0.047)
Social Sciences	0.114***	0.115***	0.110***	0.112***
	(0.037)	(0.037)	(0.037)	(0.037)
BFI Conscientiousness 1		-0.014		
		(0.014)		
BFI Openness 1			0.013	
			(0.014)	
BFI Openness 2				0.014
				(0.016)
Constant term	3.415***	3.398***	3.408***	3.411***
	(0.081)	(0.083)	(0.082)	(0.081)
Adjusted R^2	0.117	0.121	0.120	0.120
Number of obs	234	234	234	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 10

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.014	-0.015	0.039	-0.011	0.040
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.025	-0.024	-0.018	-0.018	-0.015
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.016	-0.016	-0.014	-0.018	-0.015
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.003	0.003	0.003	0.003	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.101***	-0.100***	-0.095***	-0.096***	-0.092***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status2	0.115**	0.116**	0.073	0.105**	0.068
	(0.047)	(0.047)	(0.046)	(0.048)	(0.047)
BFI Conscientiousness 2		-0.007	-0.000	-0.009	-0.002
		(0.018)	(0.017)	(0.018)	(0.018)
Engineering			0.020		0.019
			(0.056)		(0.056)
Humanities			0.075		0.074
			(0.047)		(0.047)
Social Sciences			0.105***		0.103***
			(0.037)		(0.038)
Grade				0.015	0.008
				(0.015)	(0.014)
Constant term	3.522***	3.520***	3.422***	3.467***	3.395***
	(0.079)	(0.079)	(0.081)	(0.094)	(0.094)
Adjusted R^2	0.122	0.119	0.126	0.119	0.123
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 11

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.014	-0.015	0.037	-0.011	0.039
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.025	-0.022	-0.016	-0.017	-0.013
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.016	-0.018	-0.015	-0.019	-0.016
	(0.015)	(0.015)	(0.014)	(0.015)	(0.014)
Household income	0.003	0.005	0.004	0.004	0.004
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.101***	-0.097***	-0.093***	-0.093***	-0.090***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status2	0.115**	0.121**	0.079*	0.111**	0.073
	(0.047)	(0.047)	(0.046)	(0.048)	(0.047)
BFI Conscientiousness 1		-0.023	-0.017	-0.023	-0.017
		(0.015)	(0.014)	(0.015)	(0.014)
Engineering			0.018		0.018
			(0.055)		(0.055)
Humanities			0.077*		0.075
			(0.046)		(0.046)
Social Sciences			0.105***		0.104***
			(0.037)		(0.037)
Grade				0.014	0.008
				(0.014)	(0.014)
Constant term	3.522***	3.495***	3.402***	3.447***	3.376***
	(0.079)	(0.080)	(0.082)	(0.094)	(0.094)
Adjusted R^2	0.122	0.128	0.132	0.128	0.129
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 12

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.014	-0.010	0.040	-0.005	0.042
	(0.031)	(0.031)	(0.033)	(0.031)	(0.033)
Place of origin	-0.025	-0.026	-0.020	-0.020	-0.016
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.016	-0.016	-0.014	-0.018	-0.015
	(0.015)	(0.015)	(0.014)	(0.015)	(0.014)
Household income	0.003	0.003	0.003	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.101***	-0.098***	-0.093***	-0.093***	-0.090***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status2	0.115**	0.109**	0.070	0.098**	0.064
	(0.047)	(0.047)	(0.046)	(0.048)	(0.047)
BFI Openness 1		0.015	0.012	0.016	0.012
		(0.014)	(0.014)	(0.014)	(0.014)
Engineering			0.020		0.020
			(0.055)		(0.055)
Humanities			0.069		0.067
			(0.047)		(0.047)
Social Sciences			0.101***		0.100***
			(0.038)		(0.038)
Grade				0.015	0.009
				(0.014)	(0.014)
Constant term	3.522***	3.507***	3.414***	3.453***	3.383***
	(0.079)	(0.080)	(0.081)	(0.095)	(0.094)
Adjusted R^2	0.122	0.123	0.129	0.124	0.127
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 13

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-0.014	-0.016	0.033	-0.012	0.035
	(0.031)	(0.031)	(0.034)	(0.032)	(0.034)
Place of origin	-0.025	-0.025	-0.019	-0.020	-0.015
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)
Growth environment	-0.016	-0.016	-0.013	-0.017	-0.014
	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Household income	0.003	0.002	0.002	0.001	0.001
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.101***	-0.100***	-0.094***	-0.096***	-0.091***
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
League position status2	0.115**	0.113**	0.071	0.103**	0.066
	(0.047)	(0.047)	(0.046)	(0.048)	(0.047)
BFI Openness 2		0.007	0.012	0.007	0.013
		(0.017)	(0.016)	(0.017)	(0.016)
Engineering			0.024		0.024
			(0.056)		(0.056)
Humanities			0.074		0.072
			(0.046)		(0.047)
Social Sciences			0.103***		0.102***
			(0.037)		(0.037)
Grade				0.014	0.008
				(0.014)	(0.014)
Constant term	3.522***	3.520***	3.418***	3.470***	3.391***
	(0.079)	(0.079)	(0.081)	(0.094)	(0.093)
Adjusted R^2	0.122	0.119	0.128	0.119	0.126
Number of obs	238	238	234	238	234

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 14

	Model 1	Model 2	Model 3	Model 4
Gender	-0.017	-0.020	-0.009	-0.017
	(0.031)	(0.031)	(0.031)	(0.031)
Place of origin	-0.028	-0.026	-0.023	-0.027
	(0.027)	(0.026)	(0.026)	(0.027)
Growth environment	-0.015	-0.014	-0.015	-0.014
	(0.015)	(0.015)	(0.015)	(0.015)
Household income	0.002	0.003	0.002	0.002
	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.093***	-0.095***	-0.093***	-0.095***
	(0.017)	(0.017)	(0.017)	(0.017)
League position status1	0.062	0.056	0.060	0.061
	(0.040)	(0.040)	(0.040)	(0.040)
BFI Conscientiousness 2	-0.002	-0.004	-0.005	-0.002
	(0.018)	(0.018)	(0.018)	(0.018)
Official media	-0.010			
	(0.014)			
Global Times/Guancha Syndicate		0.013		
		(0.014)		
Southern Weekly			0.030*	
			(0.017)	
NetEase/NetEase				-0.003
				(0.014)
Constant term	3.544***	3.491***	3.457***	3.522***
	(0.089)	(0.084)	(0.086)	(0.086)
Adjusted v	0.103	0.104	0.114	0.101
Number of obs	238	238	238	238

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Attached Table 15

	Model 1	Model 2
Gender	-0.032	-0.031
	(0.036)	(0.041)
Place of origin	-0.022	0.019
	(0.029)	(0.033)
Growth environment	-0.019	-0.030
	(0.019)	(0.021)
Household income	-0.004	-0.002
	(0.010)	(0.012)
Party membership	-0.087***	-0.053**
	(0.019)	(0.023)
League position status1	0.074	-0.001
	(0.046)	(0.053)
BFI Conscientiousness 2	0.007	-0.012
	(0.021)	(0.027)
Identification with official media	-0.067***	
	(0.023)	
Identification with Global Times/ Guancha Syndicate		-0.053**
		(0.021)
Constant term	3.567***	3.441***
	(0.088)	(0.101)
Adjusted R^2	0.154	0.082
Number of obs	171	111

T-statistics in parentheses
* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Attached Table 16

	Model 1	Model 2	Model 3	Model 4
Gender	0.043	0.042	0.045	0.038
	(0.034)	(0.034)	(0.034)	(0.035)
Place of origin	-0.014	-0.012	-0.015	-0.014
	(0.026)	(0.026)	(0.026)	(0.026)
Growth environment	-0.018	-0.019	-0.019	-0.017
	(0.015)	(0.015)	(0.015)	(0.015)
Household income	0.001	0.003	0.001	0.001
	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.083***	-0.080***	-0.081***	-0.082***
	(0.017)	(0.017)	(0.017)	(0.017)
League position status1	0.027	0.026	0.022	0.027
	(0.040)	(0.040)	(0.040)	(0.040)
Grade	0.011	0.011	0.012	0.010
	(0.014)	(0.014)	(0.014)	(0.014)
Official media	-0.025	-0.026	-0.025	-0.025
	(0.017)	(0.017)	(0.017)	(0.017)
Global Times/Guancha Syndicate	0.012	0.014	0.012	0.012
	(0.018)	(0.018)	(0.018)	(0.018)
Southern Weekly	0.025	0.026	0.024	0.024
	(0.017)	(0.017)	(0.017)	(0.017)
NetEase/NetEase	0.001	-0.000	0.000	-0.001
	(0.014)	(0.014)	(0.014)	(0.014)
BFI Conscientiousness 2	-0.002			
	(0.018)			
Engineering	0.022	0.022	0.022	0.027
	(0.057)	(0.056)	(0.056)	(0.056)
Humanities	0.079*	0.080*	0.073	0.078
	(0.047)	(0.047)	(0.048)	(0.047)
Social Sciences	0.110***	0.111***	0.107***	0.110***
	(0.038)	(0.037)	(0.038)	(0.037)
BFI Conscientiousness 1		-0.016		
		(0.014)		
BFI Openness 1			0.011	
			(0.014)	
BFI Openness 2				0.011
				(0.017)
Constant term	3.375***	3.355***	3.368***	3.377***
	(0.103)	(0.104)	(0.103)	(0.102)
Adjusted R^2	0.119	0.124	0.121	0.120
Number of obs	234	234	234	234

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Attached Table 17

	Model 1	Model 2	Model 3	Model 4
Gender	0.038	0.036	0.040	0.034
	(0.034)	(0.034)	(0.034)	(0.035)
Place of origin	-0.014	-0.012	-0.015	-0.015
	(0.026)	(0.026)	(0.026)	(0.026)
Growth environment	-0.020	-0.021	-0.020	-0.019
	(0.015)	(0.015)	(0.015)	(0.015)
Household income	0.002	0.003	0.001	0.001
	(0.008)	(0.008)	(0.008)	(0.008)
Party membership	-0.088***	-0.086***	-0.086***	-0.087***
	(0.017)	(0.017)	(0.017)	(0.017)
League position status2	0.086*	0.092*	0.082*	0.084*
	(0.048)	(0.048)	(0.048)	(0.048)
Grade	0.008	0.007	0.009	0.008
	(0.014)	(0.014)	(0.014)	(0.014)
Official media	-0.032*	-0.032*	-0.031*	-0.031*
	(0.017)	(0.017)	(0.017)	(0.017)
Global Times/Guancha Syndicate	0.018	0.020	0.016	0.017
	(0.018)	(0.018)	(0.018)	(0.018)
Southern Weekly	0.025	0.026	0.024	0.024
	(0.017)	(0.017)	(0.017)	(0.017)
NetEase/NetEase	0.001	-0.000	0.001	-0.000
	(0.014)	(0.014)	(0.014)	(0.014)
BFI Conscientiousness 2	-0.005			
	(0.018)			
Engineering	0.023	0.024	0.024	0.028
	(0.056)	(0.055)	(0.056)	(0.056)
Humanities	0.073	0.075	0.069	0.073
	(0.047)	(0.047)	(0.047)	(0.047)
Social Sciences	0.099***	0.099***	0.097**	0.099***
	(0.038)	(0.038)	(0.038)	(0.038)
BFI Conscientiousness 1		-0.019		
		(0.014)		
BFI Openness 1			0.009	
			(0.014)	
BFI Openness 2				0.009
				(0.017)
Constant term	3.399***	3.380***	3.395***	3.403***
	(0.104)	(0.104)	(0.103)	(0.103)
Adjusted R^2	0.130	0.137	0.131	0.131
Number of obs	234	234	234	234

T-statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Attached Table 18

Ordinary least squares analysis：A1score grade
mtt mttgrade
H0: mttgrade = 0

F(1, 258)	0.17
Prob > F	0.6842

Attached Table 19

Ordinary least squares analysis：A1score grade
mtt mttgrade
H0: mttgrade = 0

division1 = 1

F(1, 84)	6.92
Prob > F	0.0101

division1 = 2

F(1, 23)	2.82
Prob > F	0.1065

division1 = 3

F(1, 37)	0.29
Prob > F	0.5955

division1 = 4

F(1, 98)	0.29
Prob > F	0.5908

Attached Table 20

Ordinary least squares analysis：A1score grade
mtt mttgrade
H0: mttgrade = 0

division2 = 0

F(1, 139)	0.55
Prob > F	0.4603

division2 = 1

F(1, 111)	1.07
Prob > F	0.3026