

Why Do You Want to Take the Public Service Exam? Evidence from Two “Exam Societies”: Taiwan and South Korea*

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Abstract

In the Western context, scholars have conducted ample research on people’s interest in a public service career. They find that prosocial tendency, desire for job security, and economic downturn are critical reasons that attract people to the public sector. Recent evidence shows that East Asians are much more interested in a public service career than their Western counterparts, despite having to go through difficult public service exams. What contributes to East Asians’ strong interest in a government job? In addition to formerly addressed reasons, are there more underlying motivations embedded in the social structures of East Asian societies? The present study investigates this issue using data collected in 2021 from both Taiwan and South Korea. Findings show that Koreans are more interested in taking the public service exam than Taiwanese. Determinants of people’s interest in public service exams are multi-dimensional: material dimension (perception of current economic condition, family income, and exam participants being the major bread winner), prestige-related dimension (public service position as a symbol of prestige, perceived exam difficulty, and perceived academic ability), parents-related dimension (parental expectation and filial piety), and prosocial dimension (prosocial motivation). We also find that prosocial motivation is a much more important antecedent in South Korea than in Taiwan. This is probably a result of more active nonprofits in Taiwan that attract prosocial individuals.

Keywords: public service exam; preference for a public service career; East Asia;
Taiwan; South Korea

*Taiwan and South Korea are merely two examples of exam societies. East Asian countries under the strong influence of Confucianism such as China, Japan, and Vietnam are all considered as exam societies. We choose Taiwan and South Korea mainly because data collection based on random sampling is much easier in the two states. Employing the same method is more difficult in China and Vietnam, countries currently ruled by the communist party. Regarding Japan, scholars of public administration are more interested in laws than in management. As we failed to find adequate collaborators, data collection is limited within Taiwan and South Korea.

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在「考試社會」中的參加國考理由：根據臺灣 與韓國實證數據的分析

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摘要

西方公共行政學界對於「加入公部門，服務大眾」這個議題，一直以來都抱有高度的興趣。引發學者興趣背後有一個很大的原因是：在西方社會，「吃皇糧」從來都不是一件特別吸引人的工作，或許當公務員薪水一方面不怎麼樣、另一方面社會地位也不特別高，也因此「公共服務動機」是影響一個人選擇公部門的主要原因。但是在東亞社會，因為科舉制度千餘年來的影響，「當官」有著特殊的社會意義：像「一人得道，雞犬升天」、「萬般皆下品，唯有讀書高」這些大家熟悉的順口溜，都是隨科舉而來的。也因此，東亞的公共行政研究，在「當官」這個議題上，必須要走出西方設定的框架，也就是以「公共服務動機」為主軸的研究方式。本文提出一個根基於東亞科舉歷史的途徑，以臺灣與韓國的實證數據為佐證，探討東亞年輕人「為何想要報考公務員」。研究結果發現，經濟條件（像是家庭收入、對當前經濟狀況的看法、以及是否為家中主要經濟支柱）、考試本身相關的要素（像是公務員名望、考試難度、自身的學科能力），以及家庭要素（父母期待、孝道）都對報考公務員的意願有影響。親社會動機在韓國是一個重要原因，但在臺灣並不是，我們認為這個差異是源自於臺灣的非營利組織較韓國更為活躍之故。

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Introduction

“Public sector preference” or “interest in a public service career” has always been one of the most popular topics in public administration research. A possible reason for this could be the disproportionate levels of interest in a public service career between Western and East Asian societies. Using data from the International Social Survey Programme (ISSP) III, a recent empirical study by Chen et al. (2019) found that only 23% of private sector employees in the US and 13% in New Zealand are interested in a government job, whereas the percentage is as high as 56% in Taiwan. When extended to include all working individuals in a society, 31% in the US and 21% in New Zealand are indicated to have interest in a public service career, whereas the percentage is 58% in Taiwan. Evidently, attracting competent young generations to accept government employment is much more a challenge in the Western context, at least compared to East Asia. This propels Western scholars to conduct various studies that investigate motivations for a public service career.

The commonly addressed reason is public service motivation (PSM), which refers to how the willingness of prosocial individuals to choose a public sector career is influenced by their passion to serve others and their desire for opportunities to exercise this passion (Ritz et al., 2016; Vandenberghe, 2008). Another crucial reason is the desire for security (Hansen, 2014). This is because merit protection in the public sector ensures a high level of job stability, which creates a person-environment fit (Spokane et al., 2000). Some scholars tackle this issue from a view of morality and ethics, arguing that high ethical standards, social responsibility, an inclusive work environment, and having diverse colleagues are keys that drive young generations to the public sector (Ng & Gossett, 2013).

We acknowledge the importance of these antecedents in the Western context, but also question whether these findings have equally important implications in East Asia. Aside from job security, the aforementioned motivating factors seem less to do with self-interest and speak more to an altruistic desire to fulfill public interest and uphold high ethical standards. If this understanding was wholly applied to our analysis of East Asian societies, one would expect to see a much more prosocial and highly ethical public sector environment in East Asia. However, no evidence proves that this is the case. In fact, public employees in Taiwan are seen to not be any more prosocial than their business sector counterparts (Chen et al., 2019), and high-PSM individuals are

ironically more likely to fail in public service exams (Chen et al., 2020). This demonstrates that public servants in East Asia are by no means more prosocial than Westerners, and it is hence simply inadequate to treat prosociality and ethics as the key factors that drive East Asians to the public sector.

A strong interest in government positions leads to competitive public service exams in East Asia. Statistics show that in Mainland China, for instance, the average passing rate nationwide was 1.58% in 2019;¹ in South Korea, the average passing rate for the Level 9-exam was 3.31% in 2019 and 2.69% in 2020, respectively;² in Taiwan, the average passing rate for exams at both the senior level (Level 6, open to college graduates) and the junior level (Level 4, open to high school graduates) was 6.3% in 2020,³ slightly higher than those in Mainland China and South Korea. The present study intends to answer the following research question: *What motivates East Asians to pursue a public service career despite a low exam passing rate?* To answer this question, we will begin with a careful review of “a low passing rate” in the imperial exam originating from China.

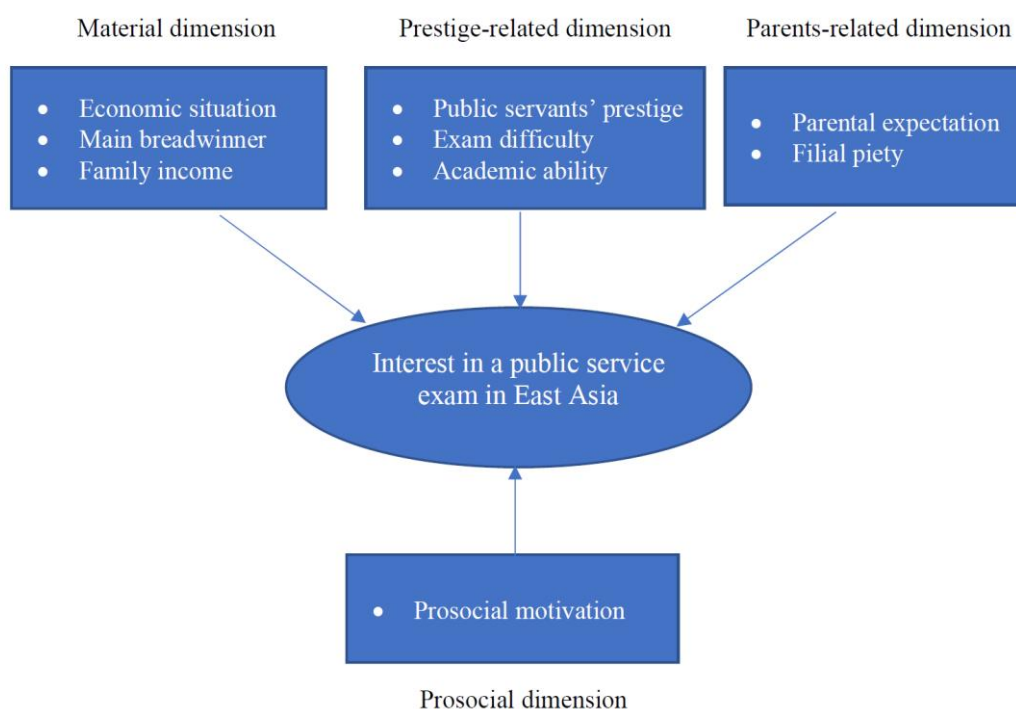
This review will be followed by hypothesis development. Hypotheses are three-fold: material reasons (e.g., family income), prestige-related reasons (e.g., exam difficulty), and parents-related reasons (e.g., filial piety). These reasons will be placed on the opposite end of the fourth dimension: prosocial motivation. We would like to examine whether the first three dimensions outweigh pro-sociality in predicting East Asians’ intention to take a difficult public service exam. Please refer to Figure 1 for the research framework. Data used for hypothesis testing were collected from Taiwan and South Korea in 2021. We find that most variables in the first three dimensions affect people’s intention to take the public service exam, but differences of statistical significance are observed between the two samples. In addition, prosocial motivation is indeed less impactful than reasons in other dimensions, but this finding is observed only in Taiwan, not South Korea. We discuss these findings in the conclusion.

¹ <https://www.chyxx.com/industry/201911/803699.html>

² <http://www.lec.co.kr/news/articleView.html?idxno=713261> and
<http://www.lec.co.kr/news/articleView.html?idxno=723698>

³ https://wwwc.moex.gov.tw/main/content/wHandMenuFile.ashx?file_id=2163 and
https://wwwc.moex.gov.tw/main/content/wHandMenuFile.ashx?file_id=2164

Figure 1 Research Framework



The Imperial Exam

Contemporary public service exams in East Asia are historically rooted in the imperial exam, spelt as *Keju* in Chinese and *Gwageo* in Korean (hereafter “Keju”). It formally appeared in 605 A. D. in China (Liu, 1995) and was later adopted by Japan, Korea, and Vietnam. Prior to the introduction of Keju, centralized governments in China relied heavily on other methods, such as order of succession and recommendation from local governments, in its selection of public officials. These methods failed to select genuinely competent people and resulted in corruption as well as aristocratism (Wang & Xu, 2002). As a result, Keju, a standardized public service exam, was introduced to rectify the aforementioned problems, enhance social mobility, and legitimize the government’s ruling power. Keju had the following features: it was hosted by the central government; it was a written exam to avoid human bias; could be taken by all keen applicants regardless of socio-economic status; and focused on Confucian knowledge (Liu, 2010; Tian, 2004). A Keju-based public service system is China’s most crucial contribution to the world, and it is considered as the origin of modern civil service exams in both East Asia and the West (Kracke, 1947; Liu, 2001).

The Social Status of Public Officials

In addition to being a tool for selection of public officials, Keju was also wielded as a political instrument for central governments to legitimize their ruling power. To encourage citizens to participate in Keju, Emperor Song Zhenzong, 968-1022 A.D., wrote the Essay of Encouraging Learning, in which it is revealed that extremely attractive material rewards accompany success in Keju (Wang, 2007):

“You don’t need farms, because you find unlimited food in books. You don’t need raw materials for a house, because you find a golden one in books. You need not be alone when you go out, because you find horses and wagons in books. You need not worry about marriage, because you find a beautiful mate in books.” (p.29)

Besides material rewards, the most apparent benefit was power, especially when no checks-and-balances were possible. In cases where government suppression and biased treatment had harmed their family, people hoped to succeed in Keju and gain power such that they could protect their family (Lee, 2003; Wang, 2007; Zheng, 2007). Attractive material rewards along with alluring power made Keju extremely competitive, as almost everyone in an agricultural society hoped to immensely improve their life by succeeding in Keju. Limited vacancies for public officials stiffened competition, and because of the same reason, those who succeeded in Keju were considered more knowledgeable and culturally advanced (Wang, 2007).

An “official-centered culture” naturally emerged wherein public officials are highly respected and honored, and citizens would typically rely on an official to mediate conflicts. Ground-level bureaucrats who interact with citizens frequently see themselves as parents to ordinary people, taking care of them and making decisions for them based on their advanced knowledge (Zi, 2001)⁴. Some common sayings such as “the higher the rank in government hierarchy, the more knowledgeable a person is” still exist in modern Chinese parlance. Indeed, extensive immersion in Confucian values has made Chinese public officials quite self-confident, but also authoritative and egocentric (Lee, 2006).

The Social Impact of Keju

After 1300 years of living with Keju, the Chinese have developed a profound faith in education, perceiving education to be “the royal road to the honors and emoluments

⁴ Related, the research on paternalistic leadership (Cheng et al., 2004; Farh & Cheng, 2000) in organizational behavior also reflects the pervasiveness of this culture in Chinese societies.

that the State has to bestow, and it is by means of it that the wildest ambition that ever ran riot through a young man’s brain can ultimately be satisfied” (Macgowan, 1912, p. 76). Some scholars even claim that China before the 19th century was a mono-occupational society wherein only positions in government are worthy of pursuit, and all other occupations serve as consolation or a last resort when applicants fail to secure a position in government (Zheng, 2007). Unsurprisingly, public schools (shuyuan) which appeared in 718 A.D. gradually became tailored for Keju preparation (Liu, 2010), and clan-based private tuition schools (sishu) also started to flourish in the 11th century (Lee, 2006). Even today, exam participants continue to rely on learning tips prepared by private tuition schools.

The fanaticism of Keju peaked in the 19th century, as Wang (2007) succinctly represents the public sentiment as such: “If a man does not take the Keju exam by the age of 15, the father and brothers should consider him useless; if a man fails to do that by the age of 20, everyone in the community can despise him” (p.41). This created enormous pressure for those who took the exams, as their happiness or sorrow was entirely hinged on the result of taking the Keju. Those who failed in several attempts were very likely to lose dignity and confidence and feel abandoned by society (Zheng, 2007).

Keju was officially abolished in 1894 in Korea and 1905 in China mainly because the required Confucian knowledge and writing skills had gradually become obsolete and instead stifled participants’ problem-solving ability (Liu & Li, 2006). However, did the abolishment of Keju eliminate people’s fanaticism with exams? Probably not. The passing rate of public service exams in East Asia is quite low on average. However, cut-throat competition along with a low passing rate does not deter people from seeking an opportunity in the public sector. The influx of thousands of young generations into the exam hall every year shows the continuous cult-like fervor of East Asians towards public service positions.

What contributes to this everlasting fanaticism? Does it suggest a lingering impact of historical legacies such as material rewards, high prestige, and family expectation that accompany a government position? In the following section, we will dive deeper into how the influence of these historical reasons in modern society. We will also consider prosocial motivation, a factor frequently highlighted in the Western literature. By juxtaposing and comparing prosocial motivation with historical reasons, we will be able to ascertain the relative importance of prosocial motivation in an East Asian context, and concomitantly, draw a clearer picture about East-West differences.

Hypotheses: Sources of East Asians' Interest in Public Service Exams

Material Dimension

As mentioned, material rewards are the main reasons that attract the Chinese to Keju. To some extent, abundant material rewards may no longer be present today due to the introduction of Western democracy, checks-and-balances, and anti-corruption practices. This is especially obvious in modern democratic states such as Taiwan and South Korea where the salary of public employees is not particularly high, and the rankings of corruption perceptions index are 25 and 32 respectively, among 180 political entities.⁵

Despite this, stable income remains the most distinctive feature of a government job. It is the first choice for those who seek job security in both East and West (Bullock et al., 2015; Chen et al., 2019). It is also particularly welcomed during difficult economic times (Van de Walle et al., 2015): people may find public sector jobs quite appealing during economic downturns, but switch back to the private sector after the rise of economy (Groeneveld et al., 2009; Llorens & Stazyk, 2011).

H1: The perception of economic situation is negatively correlated with willingness to take public service exams.

Compared to other family members, breadwinners at home usually care more about sustainable income, and meanwhile, are more sensitive to the change of economic situations (Charles & James, 2005). For example, parents instead of children need to worry about constant paychecks. In this regard, we suspect that being the major breadwinner of a family may drive individuals to pursue a stable career by taking a public service exam.

H2: Being the major breadwinner of a family is positively correlated with willingness to take public service exams.

Finally, we consider the effect of family income. Similar to perceived economic situation and being the major breadwinner, family income to a great extent determines one's concern for financial security. People from low-income families in general show more desire for financial stability, and accordingly, are more likely to pursue a public

⁵ https://en.wikipedia.org/wiki/Corruption_Perceptions_Index

service career. Indeed, a recent study based in Taiwan shows that parents from low-income families particularly expect children to take public service exams, and the expectation eventually contributes to children’s public sector preference (Chen, Xu et al., 2022).

H3: Family income is negatively correlated with willingness to take public service exams.

Prestige-Related Dimension

It is undeniable that many East Asians today still view government positions as a symbol of social status and prestige (Kim, 2009; Lee & Choi, 2016; Xu & Chen, 2021). In fact, some common sayings such as “Be patient for ten years when you study alone, but you will be famous world-wide once you succeed in exams” and “The worth of other pursuits is small, the study of books excels them all” are still frequently used to encourage young candidates to take the public service exam today. Perhaps the long-term influence of Keju across many generations has culminated in the emergence of an “exam society” and even though Keju itself has been replaced by modern public service exams, the social impacts continue to reverberate strongly in modern society (Elman, 2013). Therefore, we propose the following hypothesis accordingly:

H4: Seeing public service positions as a symbol of prestige is positively correlated with willingness to take public service exams.

The prestige of public service positions is, in fact, a result of a high level of exam difficulty. The logic is quite straightforward: a difficult exam implies the job’s high valuation (Pagliero, 2010). In this regard, when people perceive a high level of exam difficulty, they are more willing to take the public service exam in order to enjoy the high value that accompanies passing the exam.

H5a: Perception of exam difficulty is positively correlated with willingness to take public service exams.

The positive correlation between exam difficulty and willingness to take exams, as mentioned in H5a, may not hold if the levels of exam are too high. Indeed, intuitively, the levels of difficulty of an event may deter people from any initial attempt. Therefore, although perceived exam difficulty increases the intention to take exams, such increase

may decline marginally. The relationship between perceived exam difficulty and the propensity to take public service exams should appear in a non-linear, reverse-U shape.

H5b: Perception of exam difficulty has a reverse-U relationship with people's intention to take public service exams.

The deterring effect of perceived exam difficulty, if it exists at all, may be crowded out if exam participants have a strong faith in their own academic ability. Indeed, a meta-analysis on the impact of self-efficacy on work-related performance shows a positive relationship between the two factors (Stajkovic & Luthans, 1998). Self-determination theory also reveals that perceived competence fosters not only intrinsic motivation but also work performance (Ryan & Deci, 2000). Therefore, a strong faith in academic abilities should promote one's belief in doing well in a hard exam, and accordingly enhance the propensity to take the exam.

H6: Perceived levels of academic ability enhance people's intention to take public service exams.

Parents-Related Dimension

As mentioned, in an East Asian society where a majority of people have a penchant for government positions, parents are likely to expect children to take public service exams. A classic saying “like father like son” implies that thinking and behaviors between parents and children often converge, but the mechanisms differ between the East and the West. In Western societies where the autonomy of the child and individual identity are more valued, parental modelling is a more common approach for the transmission of values and behaviors (Garcia, Restubog et al., 2019; Stritch & Christensen, 2016). Alternatively, in East Asia, where the culture of submission to authority dominates (Chen & Hsieh, 2017; Yang et al., 1991), the effect of parental expectation is much more pronounced (Leung et al., 2011). Indeed, by testing dyadic data collected from Taiwanese parents and their adult children, Chen, Hsieh et al. (2022) find that parental expectation enhances adult children's willingness to take public service exams. We propose the same hypothesis in the present study as it has not been tested in other East Asian contexts, such as South Korea.

H7: Parental expectation of the pursuit of a public service career is positively correlated with children's willingness to take public service exams.

Parental expectations may not function well if young generations disregard them. Therefore, we consider the effect of filial piety (Sung, 1999), a Confucian heritage comprised of two essential concepts, namely reciprocal filial piety and authoritarian filial piety (Bedford & Yeh, 2019). Reciprocal filial piety is closer to the initial idea by Confucius, which refers to how children are motivated to satisfy the expectations of their parents out of love and after an affective reciprocity is constructed. Authoritarian filial piety, a concept developed in a later stage of Chinese history, deviates from an affective relationship. It refers to how children should be obedient to their parents even if it requires the suppression of their own desires and when positive reciprocity is absent.

We expect that filial piety has a positive impact on children’s willingness to take a public service exam. In cases where parental expectations exist, filial piety may direct children to respond to expectations more positively. Even in cases where parental expectations are non-existent, filial piety may still motivate children to actively take public service exams in a society where public service jobs signify prestige and honor to the family. Therefore, we hypothesize:

H8: Filial piety is positively correlated with one’s willingness to take public service exams.

Prosocial Dimension

Prosocial motivation refers to an individual’s desire to work for the benefit of other people or groups (Grant, 2008b). Prosocial motivation conceptually overlaps with public service motivation (PSM), a form of prosocial and altruistic motivation that specifically means the motivation to serve the public interest, and is more easily observed in government institutions than private organizations (Bozeman & Su, 2015; Mussagulova & Van der Wal, 2021). Based on existing literature conducted in the Western context, both prosocial motivation and PSM contribute to positive psychological states such as happiness and job satisfaction (Homberg et al., 2015; Moynihan et al., 2015). Most importantly, they drive people to seek a public service career (Holt, 2018).

Whether prosocial motivation or PSM promotes people’s interest in public sector jobs remains a controversial proposition in East Asian states as some empirical studies find a positive association between the two variables whereas some do not (Ko & Jun, 2015; G. Lee & Choi, 2016; B. Liu et al., 2011). One study based in Taiwan even shows that one’s prosocial tendency is much lower among those who pass the public service exam as compared to those who fail (Chen et al., 2020). Authors of the study argue that

severe competition in public service exams requires exam participants to invest large amounts of time on exam preparation and accordingly reduces their time and energy for prosocial experience such as volunteering. This eventually whittles out prosocial people.

Therefore, we feel the need to test this taken-for-granted proposition about prosocial motivation once more. Following the logic and findings from most Western studies, we hypothesize that prosocial motivation enhances people's willingness to take public service exams. By having this hypothesis, we are further permitted to examine the relative importance (compared to the aforementioned eight factors, which are particularly pertinent in East Asia) of prosocial motivation in predicting public sector preference.

H9: Prosocial motivation is positively correlated with one's willingness to take public service exams.

Beyond Hypotheses: Comparing Taiwan and South Korea

In the following sections, we will test hypotheses using data from Taiwan and South Korea, two East Asian states. In addition to general hypothesis testing, we are interested to compare whether each antecedent has the same effect in the two states. The interest to do cross-country comparison is triggered by some similarities and differences of the two states. Regarding similarities, as mentioned, both Taiwan and South Korea had a long history using the imperial exam, so treating public service positions as a sign of prestige should be deeply rooted in both countries. Additionally, people in both states claim that they are the disciples of Confucius and highly value filial piety, so parental expectation should be quite influential in these two places as well.

Despite these, we notice that different democratic experiences in the two states may slightly alter the impacts of some antecedents. For example, after the Second World War, the US brought to Taiwan and South Korea the modern democratic separation-of-power setup. However, in recent years, bureaucrat bashing has flourished in Taiwan in the face of administrative and pension reform, to some extent leading to the decrease of the exam cult. Statistics by the Ministry of Examination in Taiwan show that the passing rate of the junior-level public service exam (pukao) has increased from 1.84% in 2010 to 6.50% in 2020; similarly, the passing rate of the senior-level public

service exam (gaokao) has increased from 3.22% in 2010 to 6.42% in 2020.⁶ More detailed statistics please refer to Appendix A. As mentioned, perceived exam difficulty is a crucial antecedent of people’s willingness to take public service exams. Does the increase of passing rate in Taiwan (but not in South Korea) result in different impacts of perceived difficulty between the two states? In sum, cross-state comparison has long been an intriguing issue.

Data and Variables

Data

We advertised our online survey to social media outlets such as Facebook, Instagram, and YouTube, and recruited individuals with a potential interest in a public service career in the two countries. More precisely, our advertisement emphasized the benefits and aspirations of a public service career, and accordingly, attracted the attention of individuals who may be interested in taking public service exams. By clicking the advertisement, individuals were directed to SurveyMonkey (Taiwan) and Qualtric (South Korea) websites for our survey. To effectively target individuals interested in preparing for or taking the public service exam in the two countries, we released our advertisement intensely about one month before and after each country’s public service exam registration periods. Also, to enhance our survey quality, we set up the following restrictions: (i) survey advertisement was sent to people who live in Taiwan and South Korea only; (ii) the age range was limited between 18 and 65, qualified for public service exam registration; (iii) the advertisement was sent to the same person twice, and the same person was not allowed to participate the survey twice.

In South Korea, the registration period for the Grade 5 public service exam was from February 5 to 7, 2021. We started our advertisements and survey experiments on January 19, 2021, and closed them on February 20, 2021. The registration period for Taiwan’s Grade 6 public service exam was from March 12, 2021, to March 22, 2021. Accordingly, our advertisements and survey experiments in Taiwan began on March 4, 2021, and ended on March 31, 2021. By the end of survey, we obtained 2,630 responses from South Korea and Taiwan (1,850 from South Korea and 780 from Taiwan). After excluding incomplete and duplicated responses, we had 1,887 responses from the two states (1,284 from South Korea, 603 from Taiwan).

⁶ Refer to https://wwwc.moex.gov.tw/main/content/wHandMenuFile.ashx?file_id=2163 and https://wwwc.moex.gov.tw/main/content/wHandMenuFile.ashx?file_id=2164 for detailed information.

Variables

The main dependent variable (DV), interest in taking a public service exam, is measured with a dichotomous variable (1=yes; 0=no): “Do you have a plan to take the public service exam in the next couple of years?” We have nine hypotheses in the present study, meaning that we have nine independent variables (IV). Perceived economic situation is measured with three ordinal items (1=very bad; 5=very good; Cronbach’s $\alpha=.79$) asking respondents to assess the current economic condition in the country, the economic condition compared to 12 months ago, and expected economic condition in the next 12 months. The major bread winner is measured with a dichotomous item (1=yes; 0=no) asking “I am the major bread winner for my family. Their living is largely dependent on my work.” Family income ranges between 1 and 22, with 1 referring to zero income and 22 referring to the highest income category. The measurement of public servants’ prestige relies on two ordinal items (1=strongly disagree; 5=strongly agree; Cronbach’s $\alpha=.74$) asking respondents to rate how much they agree that working in the government signifies social status and brings face to the family.

We measure exam difficulty with an ordinal item (1=very easy; 10=very hard) asking respondents how difficult the exam is in their mind. Academic ability is measured with an ordinal item (1=bottom 30%; 7=top 5%) asking respondents to rate their general academic abilities in their life course. The measurement of parental expectation relies on an ordinal item (1= They urge me not to do it; 2= They let me choose whatever job I like; 3= They urge me to do it) asking “How much do your parents expect you to enter the public sector?” Filial piety is measured with four ordinal items (1=not at all important; 5=extremely important; Cronbach’s $\alpha=.75$) extracted from an existing scale by Yeh (2003) with two items measuring authoritative filial piety and the remaining two measuring reciprocal filial piety. Prosocial motivation is measured with a five-item scale (1=strongly disagree; 5=strongly agree; Cronbach’s $\alpha=.91$) developed by Grant (2008a).

Finally, we control for age, gender (1=male; 0=female), and education (1=no formal education; 7=university completed or higher). Age may first negatively affect the willingness to take public service exams, as exam preparation is very time consuming, and many people would need to quit their full-time job for exam preparation. This may jeopardize one’s career plan such as organizing a family and having children. In addition, to be eligible for pension schemes, public servants need to serve for a long period of time. As a result, entering the public sector late is not a wise choice in this regard. However, from another perspective, age may have a reverse-U impact on the willingness to take public service exams. It is because people may have

various dreams in their early age regarding ideal occupations in the private sector, and job insecurity along with other negative experiences in their current job that may motivate them to switch to the public sector. That is, the willingness to take public service exams increases with age first and dwindles later.

Descriptive statistics of all variables are placed in Table 1.

Table 1 Descriptive Statistics

	Full sample (n=1,887)	Taiwan sample (n=603)	South Korea sample (n=1,284)
Interest in a public service exam (0,1)	0.64 (0.48)	0.46 (0.50)	0.73 (0.45)
Perceived economic situation (1-5)	2.44 (0.80)	2.82 (0.84)	2.26 (0.71)
The major breadwinner at home (0,1)	0.22 (0.41)	0.24 (0.43)	0.21 (0.40)
Family income (1-22)	9.91 (5.70)	9.46 (5.83)	10.12 (5.63)
Public servants’ prestige (1-5)	3.48 (0.87)	3.36 (0.94)	3.53 (0.82)
Perceived exam difficulty (1-10)	7.62 (1.65)	7.74 (1.82)	7.56 (1.56)
Academic ability (1-7)	4.28 (1.44)	3.51 (1.47)	4.65 (1.27)
Parental expectation (1-3)	2.28 (0.49)	2.17 (0.44)	2.34 (0.50)
Filial piety (1-5)	3.12 (0.79)	3.17 (0.87)	3.09 (0.75)
Prosocial motivation (1-5)	4.02 (0.69)	3.87 (0.71)	4.09 (0.66)
Age (continuous)	30.01 (7.13)	34.00 (10.07)	28.33 (4.48)
Male (0,1)	0.47 (0.50)	0.54 (0.50)	0.44 (0.50)
Education (1-7)	6.70 (0.79)	6.47 (1.01)	6.81 (0.64)

Notes: Mean values reported; standard deviations in the parentheses

Findings

The DV, interest in taking a public service exam, is a dichotomous variable, so logistic regression is employed to test variable relationships. As H3b and H5b delineate possible non-linear relationships, we used polynomial regression. Polynomial regression helps researchers examine whether a given DV is related to a given IV in a nonlinear form. For example, the linear model looks like this:

$$Y = \theta_0 + \theta_1 x$$

To test a nonlinear relationship, we can add powers of the original features as new features. So polynomial regression fits data to the following equation (Kleinbaum et al., 2008):

$$Y = \theta_0 + \theta_1 x + \theta_2 x^2$$

The curve above is quadratic (degree=2) in nature, which can be used to test H5b. In Table 2, Model 1 shows results without quadratic or cubic terms, where Model 2 shows results from polynomial regression.

Table 2 Logistic Regression

	Full sample		Taiwan sample		South Korea sample	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Coef (p)	Coef (p)	Coef (p)	Coef (p)	Coef (p)	Coef (p)
Perceived economic situation	-0.14 (0.04) *	-0.13 (0.06) †	-0.02 (0.84)	-0.04 (0.73)	0.04 (0.69)	0.04 (0.66)
The major breadwinner at	0.31 (0.02) *	0.27 (0.04) *	0.38 (0.08) †	0.35 (0.11)	0.19 (0.29)	0.20 (0.26)
Family income	-0.02 (0.01) *	-0.02 (0.02) *	-0.01 (0.43)	-0.01 (0.47)	-0.02 (0.06) †	-0.02 (0.06) †
Public servants'	0.19 (0.00) **	0.18 (0.01) *	0.22 (0.03) *	0.20 (0.07) †	0.14 (0.09) †	0.16 (0.06) †
Perceived exam difficulty	0.06 (0.07) †	0.61 (0.00) **	-0.03 (0.59)	0.64 (0.01) *	0.12 (0.01) *	0.39 (0.13)
Perceived exam difficulty ^2	--	-0.04 (0.00) **	--	-0.05 (0.01) *	--	-0.02 (0.29)
Academic ability	0.18 (0.00) **	0.17 (0.00) **	0.11 (0.11)	0.11 (0.11)	0.04 (0.49)	0.04 (0.52)
Parental expectation	0.54 (0.00) **	0.54 (0.00) **	0.34 (0.10) †	0.36 (0.08) †	0.50 (0.00) **	0.49 (0.00) **
Filial piety	0.29 (0.00) **	0.28 (0.00) **	0.31 (0.01) *	0.31 (0.01) *	0.32 (0.00) **	0.33 (0.00) **
Prosocial motivation	0.27 (0.00) **	0.29 (0.00) **	-0.05 (0.69)	-0.02 (0.86)	0.38 (0.00) **	0.38 (0.00) **
Age	-0.04 (0.00) **	0.16 (0.01) *	-0.05 (0.00) **	0.01 (0.93)	0.04 (0.02) *	0.41 (0.00) **
Age ^2	--	-0.003 (0.00) **	--	-0.001 (0.39)	--	-0.005 (0.00) **
Male	0.07 (0.52)	0.06 (0.58)	0.01 (0.94)	0.05 (0.78)	0.07 (0.61)	0.01 (0.96)
Education	0.21 (0.00) **	0.11 (0.13)	0.18 (0.07) †	0.14 (0.18)	-0.01 (0.94)	-0.12 (0.32)
Constant	-4.17 (0.00) **	-8.52 (0.00) **	-2.01 (0.07) †	-4.81 (0.00) **	-5.26 (0.00) **	-10.97 (0.00) **
N	1862	1862	590	590	1272	1272
Prob > Chi square	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R square	0.083	0.092	0.069	0.079	0.068	0.074

† p<.10; * p<.05; ** p<.01

In the full sample, Model 1, almost all hypotheses receive statistical support. In the material dimension, perceived economic situation has a negative impact (Coef = -0.14; $p < .04$), being the major breadwinner has a positive impact (Coef = 0.31; $p < .02$), and family income has a negative impact (Coef = -0.02; $p < .01$). In the prestige-related dimension, public servants' prestige (Coef = 0.19; $p < .00$), perceived exam difficulty (Coef = 0.06; $p < .07$), and academic ability (Coef = 0.18; $p < .00$) all generate a positive impact. In the parents-related dimension, both parental expectation (Coef = 0.54; $p < .00$) and filial piety (Coef = 0.29; $p < .00$) have a positive effect. Finally, prosocial motivation has a positive impact as well (Coef = 0.27; $p < .00$). These findings provide statistical support to H1, H2, H3, H4, H5a, H6, H7, H8, and H9.

Regarding H5b (perceived exam difficulty), results from Model 2 render strong support with both the linear term (Coef = 0.61; $p < .00$) and the quadratic term (Coef = -0.04; $p < .00$) being statistically significant. This result shows a better fit than that in Model 1 ($p < .07$), so the relationship between exam difficulty and the willingness to take exams more resembles a reverse-U shape.

Regarding controls, we find that well educated people are more interested in taking the exam (Coef = 0.21; $p < .00$). Age is negatively associated with taking the exam (Coef = -0.04; $p < .00$), but the decrease may not absolutely be a straight line. The interest may rise first (Coef = 0.16; $p < .00$) and decline later (Coef = -0.003; $p < .00$). The interest to take exams does not differ between the two genders.

We are interested to know whether these antecedents have similar effects in both Taiwan and South Korea. First, coefficients of public servants' prestige (H4), parental expectation (H7), and filial piety (H8) are all positive and statistically significant in the Taiwan sample and the South Korea sample, perfectly in line with findings reported in the full sample. Second, perceived economic situation (H1), and academic ability (H6) are not too significant in both the Taiwan and South Korea samples. Finally, the major breadwinner at home (H2) is significant in the Taiwan sample but not in the South Korea sample; family income (H3) is significant in the South Korea sample but not in the Taiwan sample. However, for H1, H2, H3, and H6, it should be noted that the directions of most coefficients (i.e., whether the coefficient is positive or negative) remain identical to those in the full sample. The shrinking significance of these coefficients is quite likely a result of reduced sample size.

More apparent differences appear in the two variables. First, regarding perceived exam difficulty (H5a and H5b), the relationship is a straight line in South Korea, but a reverse-U curve in Taiwan. Another major difference is the impact of prosocial motivation (H9): it is positive and statistically significant in South Korea, but not at all significant (even somewhat negative) in Taiwan. To further test this observation, we conducted moderation analysis using country (Taiwan=0; South Korea=1) as the moderating variable and tested whether the impacts of nine independent variables vary in the two countries. Results from Table 3 support the aforementioned findings: only

two interactive terms, perceived exam difficulty (Coef = 0.18; $p < .01$) and prosocial motivation (Coef = 0.39; $p < .02$) have statistically significant coefficients in Model 1. These differences may reflect some cultural and institutional differences in the two states and deserve further discussion.

Table 3 Interactive Effects

	Model 1		Model 2	
	Coef	(p)	Coef	(p)
(1) Perceived economic situation	0.01	(0.94)	-0.01	(0.90)
(2) The major breadwinner at home	0.18	(0.39)	0.18	(0.39)
(3) Family income	-0.01	(0.34)	-0.01	(0.39)
(4) Public servants' prestige	0.19	(0.07) †	0.17	(0.11)
(5) Perceived exam difficulty	-0.05	(0.31)	0.66	(0.01) *
(5.1) Perceived exam difficulty ^2	--	--	-0.05	(0.01) *
(6) Academic ability	0.13	(0.05) *	0.13	(0.05) *
(7) Parental expectation	0.40	(0.05) *	0.41	(0.04) *
(8) Filial piety	0.26	(0.02) *	0.27	(0.02) *
(9) Prosocial motivation	-0.01	(0.92)	0.01	(0.94)
Country (Taiwan=0; South Korea=1)	-2.07	(0.05) *	-0.51	(0.75)
(1) x country	0.03	(0.83)	0.05	(0.73)
(2) x country	0.09	(0.75)	0.08	(0.78)
(3) x country	-0.01	(0.66)	-0.01	(0.63)
(4) x country	-0.05	(0.73)	-0.03	(0.85)
(5) x country	0.18	(0.01) *	-0.30	(0.41)
(5.1) x country	--	--	0.04	(0.18)
(6) x country	-0.08	(0.36)	-0.08	(0.36)
(7) x country	0.09	(0.71)	0.08	(0.75)
(8) x country	0.09	(0.51)	0.08	(0.60)
(9) x country	0.39	(0.02) *	0.37	(0.03) *
Age	0.15	(0.00) **	0.16	(0.00) **
Age ^2	0.00	(0.00) **	0.00	(0.00) **
Male	0.06	(0.60)	0.07	(0.50)
Education	0.07	(0.34)	0.06	(0.45)
Constant	-4.99	(0.00) **	-7.31	(0.00) **
N	1862		1862	
Prob > Chi square	0.000		0.000	
Pseudo R square	0.1119		0.1158	

† $p < .10$; * $p < .05$; ** $p < .01$

It is worth noting that the ideal fit McFadden’s Pseudo R-squared, according to some scholars, is between 0.2 and 0.4.⁷ Results from all regression models are slightly lower than the ideal value. Despite this, most hypotheses are well supported by the results.

Discussion

In the full sample, we find that almost all hypotheses receive statistical support, meaning that material factors (e.g., perceived economic situation and being a major breadwinner at home), prestige-related factors (e.g., public servants’ prestige and academic ability), and parents-related factors (e.g., filial piety and parental expectation) are all influential in promoting people’s willingness to take public service exams. However, upon closer analysis of the standardized coefficients in Table 4, we notice that factors related to prestige and parents are in general more impactful than material factors. As prestige-related factors and parents-related factors are more commonly observed in East Asia than the West, we argue that motivations for pursuing a public service career are indeed unique in an East Asia context (Chen et al., 2018).

Table 4 Standardized Coefficients

	Full sample	Taiwan sample	South Korea sample
Perceived economic situation	-0.10	-0.03	0.03
The major breadwinner at home	0.11	0.15	0.08
Family income	-0.13	-0.07	-0.12
Public servants’ prestige	0.16	0.18	0.13
Perceived exam difficulty	0.09	-0.06	0.18
Academic ability	0.25	0.16	0.04
Parental expectation	0.27	0.16	0.25
Filial piety	0.22	0.27	0.25
Prosocial motivation	0.19	-0.02	0.25

We can surely deem East Asia a collective entity that sharply contrasts Western countries with regard to people’s interest in public service jobs. However, through this oversimplified lens, we may overlook possible differences among East Asian states. The Taiwan-South Korea comparison in the present study, for example, reveals some interesting stories that merit further contemplation by readers.

⁷ <https://mulloverthing.com/what-is-a-good-pseudo-r2-in-logistic-regression/>

First, perceived exam difficulty has a nonlinear (up then down) effect on willingness to take exams in Taiwan, but a positive and straight effect in South Korea. A straightforward interpretation of this difference can be stated as the following: Koreans are more fanatic about public service positions, regardless of possible failure when facing exam difficulties. By contrast, Taiwanese are more realistic: “If exam is too hard, don’t bother trying it.” It seems that the exam cult is better preserved in South Korea than in Taiwan. In fact, a lower passing rate of public service exams in South Korea, as mentioned in the beginning, corroborates this finding. Has the Taiwanese people’s faith in public service positions been diluted? The answer is yes. Statistics in Appendix A Table A1 show that the increase of passing rates of the senior-level exam (gaokao) and the junior-level exam (pukao) is obvious between 2001 and 2020. This prompts a further question: Why is this so? A possible answer is rampant bureaucrat bashing (Garrett et al., 2006) along with the call for radical pension reform in recent years. This trend tarnishes the image of public servants and accordingly demotivates the younger generations to join the public service. Of course, it should be admitted that any explanation provided here lacks solid statistical proof, but could shed some light on areas for future study.

In addition, we find that prosocial motivation promotes people’s interest in taking exams in South Korea, but not in Taiwan. This finding is quite consistent with the very limited empirical evidence from the two states so far. A Taiwan-based study reflects how people who prefer public sector jobs are not more prosocial or altruistic than those who prefer private sector jobs (Chen et al., 2019). Another study indicates that Taiwanese who pass public service exams are actually less prosocial than those who fail (Chen et al., 2020). A South Korea-based study by Ko and Jun (2015) shows that prosocial motivation is positively associated with college students’ intention to join public service. Lee and Choi (2016), in another study, used regression analysis to test the same proposition and indicated zero impact of prosocial motivation among college students. However, by looking more carefully into the analysis, we find that prosocial motivation and altruistic motivation have a significant effect on sector choice in correlation matrix. The authors of that article probably neglected the influence of multicollinearity, a main cause of statistical insignificance.

But why do public organizations fail to attract highly prosocial people in Taiwan? One possibility is the flourishing of nonprofit organizations in Taiwan. Official statistics show that there were 15,051 registered nonprofit organizations in South Korea in 2020, an incremental increase from 9,603 in 2010.⁸ By contrast, in Taiwan, the number of registered nonprofits was as large as 35,392 in 2010. In 2016, the number

⁸ <https://www.statista.com/statistics/1227922/south-korea-number-of-ngos/>

reached 50,030.⁹ In fact, according to Kuan and Duh (2011), the total number of nonprofit organizations in Taiwan, both registered and unregistered, was approximately 63,575 in 2009, going far beyond official statistics. Meanwhile, the population size in Taiwan is 23.57 million, less than half of 51.78 million in South Korea. In other words, the relative size of nonprofits in Taiwan is roughly 7 times higher than that in South Korea.

Empirical evidence has repetitively indicated that prosocial motivation directs individuals away from the business sector but toward a not-for-profit career, which includes both public and nonprofit sector jobs (Bright, 2016; Tschirhart et al., 2008; Word & Carpenter, 2013). A relatively large number of nonprofits in a society, such as Taiwan, provides highly prosocial people alternative career choices in addition to the public sector. Again, this explanation is merely a conjecture with no robust statistical test for correlation. We encourage scholars to have a more careful design of research and ascertain direct evidence in future studies.

Conclusion

The present study explores reasons that individuals choose to take public service exams in Taiwan and South Korea. The technical approach taken to test hypotheses, namely regression with moderation analysis, is akin to any quantitative research that appears in contemporary public administration journals. What makes our article distinctive is the choice of antecedents (i.e., independent variables). Instead of following existing studies grounded in Western countries by examining the effects of prosocial motivation and security value, we aim for a storyline tailored for East Asians, investigating path dependence of people’s interest in a public service career. More precisely, we ask whether the imperial exam, a system that has long been inundated in the East Asian history, is still haunting people today in multiple different facets such as public officials’ prestige, exam difficulty, filial piety, and parental expectation.

We acknowledge that no research is perfect. Limitations often exist. The most apparent limitation of the present study is using cross-sectional data, which results in possible common method bias (CMB). Similar to other studies, we employed the Harman’s single-factor test and didn’t detect a severe problem of CMB (Podsakoff et al., 2003). Using cross-sectional data also jeopardizes causal inferences, as causalities can sometimes be reversed or simultaneous. This concern can be much attenuated in this study, as the outcome variable — interest in taking public service exams, is

⁹ <https://ccw.org.tw/news/4-0-ngo>

logically unlikely to lead to an increase or decrease of filial piety, parental expectation, economic situation, or even family income.

This article is one of the pioneer studies that draw a unique picture of East Asians' "way to glory" (Macgowan, 1912). Grounded in our findings, we urge scholars to propose more incisive research questions. For example, we have learned that parental expectation and filial piety promote people's tendency to take exams, but do the same factors increase the likelihood of passing the exam? Or alternatively, do these factors become introjected regulation (Gagné & Deci, 2005), which accordingly harms people's perceived autonomy and their performance in the exam? If parental expectation and filial piety are not impactful, what are? Academic ability? Conscientiousness? There are many questions that remain to be desperately answered. But in sum, this study attempts to tell an "East Asian Story" about public service exams and hopes to mark the beginning of a much deeper understanding to come.

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Appendix A. Exam Passing Rates in Taiwan and South Korea

Table A1 Exam Passing Rates in Taiwan

	2001	2005	2010	2015	2020
Senior-level exam (Gaokao)					
Civil Service					
Participants in total	41,984	38,050	66,596	56,136	43,849
Participants who passed	1,291	1,305	2,145	3,552	2,817
Passing rate	3.07%	3.43%	3.22%	6.32%	6.42%
Professional/ Technical Personnel					
Participants in total	47,492	78,357	98,070	94,038	96,147
Participants who passed	7,859	19,644	18,469	19,590	19,753
Passing rate	16.55%	25.07%	18.83%	20.83%	20.54%
Junior-level exam (Pukao)					
Civil Service					
Participants in total	56,646	37,023	70,014	55,755	41,238
Participants who passed	1,195	666	1,291	2,900	2,680
Passing rate	2.11%	1.80%	1.84%	5.20%	6.50%
Professional/ Technical Personnel					
Participants in total	12,168	76,885	109,927	81,248	57,660
Participants who passed	2,412	18,126	25,936	13,554	10,628
Passing rate	19.82%	23.58%	23.59%	16.68%	18.43%

Source: Ministry of Examination

Table A2 Exam Passing Rates in South Korea (2020/2021)

	Level 5		Level 7		Level 9	
	2020	2021	2020	2021	2020	2021
Civil Service						
Participants in total	9,069	10,989	29,826	32,148	160,830	171,071
Participants who passed	264	240	634	665	4,209*	4,951*
Passing rate	2.91%	2.18%	2.13%	2.07%	2.62%*	2.89%*
Professional/ Technical Personnel						
Participants in total	2,105	2,407	4,877	6,799	24,373	27,039
Participants who passed	71	81	204	224	776*	711*
Passing rate	3.37%	3.37%	4.18%	3.29%	3.18%*	2.63%*

Source: Ministry of Personnel Management Cyber Examination Center

* That is the expected number of recruits, not the actual number of passed exams.

Appendix B. Measurement of Variables

Interest in taking a public service exam (no=0; yes=1)

- Do you have a plan to take the public service exam in the next couple of years?

Perceived economic situation (1=very bad; 5=very good; Cronbach's alpha=.79)

- In general, how would you describe the present economic condition of this country?
- Looking back, how do you rate economic conditions in this country compared to twelve months ago?
- Looking ahead, do you expect economic conditions in this country to be better or worse in twelve months' time?

The major breadwinner (0=no; 1=yes)

- I am the major bread winner for my family (e.g., parents, siblings, partner, children, etc.). Their living is largely dependent on my work.

Family income (1=zero income; 22=over 300,000 NTD in Taiwan and over 10,000,000 Won in South Korea)

- Before taxes and other deductions, what is the total average monthly income of your household? This includes all sources of income (ex. work income, interest or dividends, property income, rent, pensions, welfare support, or the money personally provided by somebody) from all household members including you.

Public servants' prestige (1=strongly disagree; 5=strongly agree; Cronbach's alpha=.74)

- Working in the government brings "face" to one's family.
- Government jobs have a high social status.

Exam difficulty (1=very easy; 10=very difficult)

- In your mind, how difficult is the public service exam?

Academic ability (1=bottom 30%; 2=top 70%; 3=top 50%; 4=top 70%; 5=top 20%; 6=top 10%; 7=top 5%)

- How would you rate your general academic abilities?

Parental expectation (1= They urge me not to do it; 2= They let me choose whatever job I like; 3= They urge me to do it)

- How much do your parents expect you to enter the public sector?

Filial piety (1=not at all important; 5=extremely important; Cronbach’s alpha=.75)

- Regarding following attitudes toward parents, how important are they?
 - Be kind and nice regardless of how badly one has been treated by them.
 - Give up one’s own plan in order to comply with parents’ wishes.
 - Be responsible for making parents’ life comfortable.
 - Do something to glorify the family.

Prosocial motivation (1=strongly disagree; 5=strongly agree; Cronbach’s alpha=.91)

- I get energized by working on tasks that have the potential to benefit others.
- It is important to me to have the opportunity to use my abilities to benefit others.
- I prefer to work on tasks that allow me to have a positive impact on others.
- I do my best when I’m working on a task that contributes to the well-being of others.
- I like to work on tasks that have the potential to benefit others.

Age (continuous variable)

Gender (female=0; male=1)

Education (1=no formal education; 2=primary school completed; 3=middle school completed...7=university completed or higher)

