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Investigating Social, Family and Economic Factors Affecting Gender Stereotyping Under Different Education Systems

Xiner Xu^{1, a, †,*} Muyi Liu^{2, b, †, *} Xindian Lai^{3, c, †,*} Yunlai Hong^{4, d, †,*}

ABSTRACT

This paper investigates whether social, family and economic factors affect gender stereotyping on females under different educational systems. This investigation benefits eliminating gender stereotyping in Chinese society, facilitating gender equality and economic growth in future China. In the research, a sample of 17 female students from different educational backgrounds was interviewed online by dividing into focus groups based on their educational experience. The results show that Chinese female students are all influenced by Chinese traditional or social values, and the extent of the impact depends on the contact level. School and family environments play an essential role in forming and influencing students' thoughts on gender expectations, consequently influencing students' major-choice in college and future career planning. Also, the results support our hypothesis that Chinese female students in American high school who are exposed to fewer gender stereotypes or discriminations would show more self-confidence, which will impact their career and major selection in university. This research enables society and families to be aware of its influence on gender stereotyping on female students, and schools can modify its pedagogy to reduce gender stereotypes in education. Consequently, gender stereotypes and discrimination can have less impact on females, and they can participate in more economic and social activities regardless of their gender concerns.

Keywords: Gender Stereotypes, Female Education, Career Major Choice, Social, Economic, Family

1. INTRODUCTION

The conventional social structure and cultural values forbade female education, females' intelligence and capability were underestimated for a long time in this male-dominated society. But, as people gradually realize the significance of evoking female independence as time flies, some social movements advocate women to receive equal treatment. Mary Wollstonecraft was a famous feminist who fought for women's rights, especially social and educational equality. She pointed out that gender bias and low social status for women would disappear if society could provide the opportunity for them to receive an education. There is no doubt that gender stereotypes on women still exist recently, and it

is affected by the school, family, and the social economy. However, how these factors affect the formation of gender stereotypes in different education systems is still not clear. This paper investigates this problem through the feedback of women from different backgrounds on gender stereotypes in the main body part.

2. LITERATURE REVIEW

2.1. The Impact of School on Gender Stereotype

School plays an essential role in forming people's thoughts and beliefs through educating and transferring

¹ Windermere Preparatory School, Windermere, Florida; 34786; the United States

² Tongji University, Shanghai, Shanghai; 200082; China

³ International Department, the Affiliated High School of South China Normal University, Guangzhou, Guangdong; 510000; China

⁴ Westtown School, Westtown School, West Chester, Pennsylvania; 19382; the United States

^{*}Corresponding author. Email: axxu2022@windermereprep.com, b1950395@tongji.edu.cn,

claixd.christine2019@gdhfi.com, dcassie.hong@westtown.edu

 $^{^\}dagger T$ hese authors contributed equally.



information to students from different aspects. In Chinese education, gender stereotypes, which may forbid achieving gender equality. Firstly, Chinese textbooks show gender stereotypes apparently in their contexts, especially males and females professions and characteristics. According to the research conducted by Law and Chan (2004), the paper examines the extent of gender role stereotyping in primary schools textbook in Hong Kong's popular textbooks from 1995 to 2000[1]. The results show that females are presented in low frequency, described in the household scene, and their profession range is limited, is mainly concentrated in low-wage work. Specifically, in the textbooks, femaledominated occupations are primary teachers, artists, and clerks; monopolized occupations are nurses, waitresses, and cashiers. These occupation descriptions form and reinforce gender stereotypes among Chinese students, but the level of stereotyping reduces compared to previous research [1]. Therefore, the Chinese textbook is contributing to eliminating gender stereotypes to some extent. However, it does not complete the goal as stereotypes remain. It is necessary to balance the gender figures for both males and females, enabling future Chinese society to achieve gender equality.

In addition to textbooks, the education environment also has a significant impact on students' thoughts. Based on a previous study conducted by Wong, Shi, and Chen (2018), single-sex high school students have stronger gender salience. They also have fewer othergender friends and higher mixed-gender anxiety compared to high school students from mixed-gender schools. In this case, students who study in singlegender schools face more gender anxiety, negatively promoting communication between genders [2]. Thus, the school environment can affect students' mental and behaviors, and single-sex schools do not help reduce gender stereotypes. However, it enhances the tense relationship between different genders. Moreover, students in China and the United States show different attitudes towards gender perception of professors' behavior, which relates to education environment differences in these two countries. American females judge behavior more offensive than Chinese females do. Contrastly, Chinese students expect professors to behave more competent and dignified, while American students expect respectfulness, opportunity, and an engaging environment [3]. As a result, the American and Chinese education environments cause different perspectives and expectations formation on students, enabling researchers to investigate their attitudes on gender based on their educational background.

Besides, the pedagogy process is essential for students to form different thoughts about gender. Chinese students are influenced by gender stereotyping since they were in kindergarten. According to the research conducted by Chen, and Rao (2010), teachers prefer to interact more with male students than female

students. They subtly transfer Chinese traditional values and gender stereotypes to students [4]. Therefore, the idea of gender inequality and stereotypes influences Chinese students since their childhoods. Also, students' thoughts are inevitably affected by the pedagogy processes. As a result, the school should provide a gender-neutral environment to facilitate gender equality, and teachers should adjust their pedagogy strategies to eliminate gender stereotypes.

2.2. The Impact of Family on Career and Major Choice

The family influences adolescents' careers and major decision-making by instilling gender stereotypical views into adolescents or by other factors. Traditionally, adolescents are supposed to be defiant against their parents. However, studies also show that adolescents tend to have a common view on major issues with their parents, which will sometimes lead to their dismissal of some career choices if their parents disapprove that they take such jobs [5]. In the last several decades, family's influence on females' career or major choice is important through gender stereotyping, but this trend seems to weaken with time development. There is also controversy about how family roles influence adolescents' minds. While in the past, a father more significantly affects children's career and major choices, it is demonstrated that mothers also play an increasingly important role in affecting children's choices due to women's rising socioeconomic status and their greater economic contributions to family [6, 7]. Also, children are more likely to consult with their mothers on career or major selections [8]. Nevertheless, it is debatable whether this maternal influence is beneficial. Research indicates that "parents, especially mothers, socialize their children to perceive separate roles for men and women within society," suggesting that mothers play a more significant role in gender stereotyping their daughters [5]. Several studies prove that despite massive exposure to children's individual information, mothers are still influenced by gender stereotypes and, thus, they can't gain an objective perception of their children's ability or potential [9-12].

Other factors also influence gender stereotypes. A study shows that when children are more emotionally detached from their parents, they are more likely to insist on their own major or career choices, making children more autonomous [13]. Besides, children emotionally close to their parents, children whose family socioeconomic status is lower also have more predictable major or career choices. These students are more likely to give up jobs of higher risk and to choose jobs of greater stability and better employment prospect and reckon a higher degree as merely a means to achieve upper socioeconomic status and financial stability [14]. Compared to males, females are more



likely to be recommended to work as teachers by their parents, given that they both come from a less economically privileged family. The teacher is seen as a career suitable for women, especially one from a poor family. While rich family's children have a wider range of career and major choices, females from poor families seem to be more likely to suffer from gender stereotypical views on career and major choice.

Family is seen as a vital institution to reinforce traditional sexual relationship ideal and family ideal, thus restraining the development of various roles different sexes can perform and how different people interact sexually with each other. A traditional family ideal requires heterosexual parents; the wife should stay at home attending children and households, while the father is often the breadwinner outside the home [15]. This family ideal excludes the possibility of homosexual parents and a change of family roles for each gender. Children will also learn from the function of such a family, such as gender stereotypes. Thus, family ideal usually functions to enhance gender stereotypes.

2.3. The Impact of Gender Stereotype on Economic Growth

Eliminating gender inequality is crucial to the international community, for it has a negative effect on economic growth, which has an indelible influence on social development. This kind of gender inequality is first reflected considerably in the educational level of men and women. Taking the primary and secondary education enrollment rates between men and women in sub-Saharan Africa, North Africa, and Middle East countries as gender inequality indicators, study shows that both direct and indirect effects on income growth exist due to the unequal access to education [16]. First, the lower percentages of female entrance to education reduce the average level of human capital [16]. It is worth mentioning that in economic growth, the role of human capital is greater than that of material capital. Human capital investment is directly proportional to national income and grows faster than material resources. Thus, inequality of education enrollment does harm to economic growth. Then, female education was found to positively affect labor productivity, while such evidence was ambiguous in male education [16]. Well, education enables women to become better-informed mothers who may offer the next generation with better upbringing, providing more talents to society, thus forming a virtuous circle. However, the current reality is that women do not get the same educational opportunities as men, especially in developing areas like MENA (the Middle East and North Africa) and South Asia. The study found that in countries such as Egypt, Iran, Syria, and Yemen, the gender inequality in education was relatively obvious [17]. Compared with boys in most countries, the differences between urban and rural areas of none reception of education are quite small [9]. While the urban-rural disparity in girls' enrollment rate is particularly large, demand for girls' education is generally more sensitive to distance to school, the cost, the rate of return on education, and family expectation [17]. Thus, families, even women themselves, would have a lot of concerns before finally deciding whether to go to school. According to the research conducted in 2009, gender inequality in education reduced economic growth in the 1990s in MENA and South Asia region [18]. It continues to hinder the region's growth, but the economic progress in the Middle East and North Africa is much faster than that in South Asia because the gender gap in education has narrowed sharply in MENA in the past 20 years [18].

In addition, what impacts the economy is not only the gender inequality reflected by the educational level of men and women but also the gender discrimination encountered by women in employment. Since the postindustrial society, neoliberalism has been gradually globalized. Technological innovation has brought more occupation opportunities that require high education and a low labor force. The open society began to provide vocational education for women, which seems to open a window for women's freedom. However, vocational education was not enough to challenge the existing social structure, and, thus, women were actually not prepared for the male-dominated economies [19]. Women's position in the profession was low, and they earned much less than men. At the same time, the gender stereotype that women can only engage in certain professions like clerical, sales, or service industries emerged. In fact, such a stereotype was groundless. No explicit evidence has shown that women do worse than men in any vocation. Heiner, chairman of the board of directors of Heiner Thorborg & Co, who has been engaged in business management consulting business for a long time, said in an exclusive interview with Global Times reporters in 2018 that according to relevant research on corporate leadership, female leadership has added unique value to European enterprises. Enterprises with women joining the board level will perform better. Usually, the performance is more outstanding, more efficient, and more profitable.

3. METHODOLOGY

Research methods adopted by this study are focus group discussion and interviews.

17 female students are divided into 5 groups. Group A includes two Chinese female students from public high schools in China; Group B includes three Chinese female students from international high schools in China; Group C includes six Chinese female students from high schools in the United States; Group D includes five undergraduates from universities in China;



Group E includes five undergraduates from universities in the United States.

Focus group discussion is helpful because it can not only explore if social, economic, and family factors have any influence on their gender notions, but also how and what their attitudes towards this influence are. Thus, researchers can obtain a more detailed description of the mechanism of outside influence on female students' gender notions. This method can also save time since several participants are interviewed at one time. However, the relative disadvantage of this method is that it is nearly impossible to include a large number of samples. Therefore, the outcomes might not be representative enough. What's more, participants might be influenced by others' responses in unknown ways; thus, their responses might deviate from their original thoughts.

Due to global Covid-19 epidemics, each group's participants are asked to join different rooms in Zoom. They are asked 7 questions regarding their opinions on social, economic, and family factors that can gender stereotyping female students in different aspects such as career and major decision making. To ensure validity and reliability of the data collected, two researchers translate participants' responses to written words during the focus group session; after the session, another researcher re-listens to the recording of the session and checks if any massages are missing or deviate from participants' meanings. Participants' responses are translated from Chinese to English by researchers in order to present them in this paper.

4. RESULTS ANALYSIS

4.1. School

The results show differences among the five groups, but there are some similarities in some aspects.

Firstly, all the participants show their understanding of Chinese traditional core values regardless of their age range or educational background. Some of their ideas overlap, such as foot-binding, women's inferiority in ancient China, and marriage responsibility. Thus, their shared understanding reveals that Chinese female high school students and undergraduates are affected by Chinese traditional values. Moreover, the results show that students' disliked subjects have no relationship with the influence of gender identity but only associated with their academic interest. A Chinese public high school student said: "Some textbooks have (gender stereotypes) like moms are great so that these textbooks can influence student's mind subtly." As a result, Chinese textbooks can impart gender stereotypes to students and form their thoughts.

However, students from other groups do not reflect any information about textbooks. Hence, textbooks do not significantly bring students' attention, but different educational systems and environments strongly influence them. All the students mentioned the stereotypes remained in the process of their current educational system. Stereotypes exist in education in numerous forms, including separation of physical education classes and different school dress codes. In public school, people do not often realize the influence or existence of gender stereotypes, which means they seldom mention the importance of gender inequity. The school or society does not pay much attention to it. On the other hand, three students say high schools' efforts in the United States to eliminate gender stereotypes and implement gender equity. Thus, the Chinese educational system tends to neglect gender stereotypes. In contrast, the pedagogy in the United States has some improvements to help alleviate the current situation. Regardless of the efforts in progress, gender stereotypes remain in education. Participants then show their expectations of the future society with fewer gender stereotypes. They believe that more contributions should be devoted to achieving the goal. To sum up, participants' answers correspond to the literature review, but their attitudes maintain critical about the gender stereotypes in education.

4.2. Family

This part focuses on if gender stereotypes existing in the family affect females' career or major choice. Our study suggests that, generally, family members' wills have very little influence on participants' final decision making on career and major choice. Almost all participants are preparing for a job they are satisfied with or have an interest in. No participants are currently preparing for careers they extremely dislike but only choose out of their parents' wish. Only two participants choose or plan to choose a job largely because of parents' wish or family's economic status. Of the two, one's parents wish her to be a teacher because of this job's advantages, such as relatively high and stable salary, sufficient vacations. The participant implies being a girl is a reason behind her parents' wish for her to be a teacher, indicating that parents' gender stereotypes still take part in this process of influencing children's choice making. It should be noted that this participant's family's financial status is not so good. The participant chooses this job because the comfortable treatment for a teacher can provide her with the ability to afford a comfortable life for her parents in the future, which is what she really wishes to do. Since she does not have a very interested career, she does not dislike being a teacher. Her choice should not be considered as only due to her parents' will, but also due to her own will.

Almost all participants do receive advice from their parents, but most of them are disregarded by



participants. Advice contradictory with participants' interests is disregarded by participants. Most of the advice, however, is not based on a gender stereotypical view. This advice is mostly based on the employment prospect of jobs but doesn't reflect gender stereotypical views within it. Surprisingly, some advice from their parents is even contrary to traditional views on what occupation or major a girl should choose. Participants whose parents give them advice or wish them to choose certain jobs report the advice composed of being a lawyer, a businessman, or manager, studying science and engineering. Thus, in this study, parents encourage their daughter to enter fields where traditionally males dominate. In this study, most parents' notions have been reversed to a certain degree, and they now tend to challenge traditional views on what major or career girls should choose. While this type of advice-ones manifesting advanced gender notions-all come from parents of participants who study in an international senior high school or in an American university, almost all the conservative advice comes from parents of participants who study in Chinese ordinary senior high schools or Chinese universities. Three participants, all coming from the domestic education system, report that their parents wish them to be a teacher. Teacher Parents who send their children to study in an international educational system usually receive higher education or simply have a higher socioeconomic status, both factors leading them to greater accessibility to more liberal gender notions. Thus, whether a family will convey gender stereotyping views to their children depends on its socioeconomic status as well.

Nevertheless, participants do consider advice regarding the financial situation of their families. Four out of seventeen participants report they will take if their family can afford them financially to take a certain type of job into account. For example, a participant who wants to study art expresses her concern about if her family can afford the spending since studying art costs a lot of money. There is no explicit sign of involvement of gender stereotypes in this type of concern.

Participants tend to be influenced by family more implicitly. Three participants report they fall in love with their current major or career because their family members once work in this field, and they were therefore close to these fields from early childhoods. They thus cultivate interest from then. There is no explicit sign of involvement of gender stereotypes in this process either.

Generally, participants seem to receive very little influence from their parents' will. These wills might have been influenced by gender stereotypes but elicit participants' objection or are disregarded by participants. Participants, however, do receive impact from their family (members) experience or family's financial status when considering major or career. This

effect has no explicit relationship with gender stereotypes.

4.3. Economic

According to the description, Chinese public high schools participants indicate that some long-standing gender stereotypes will affect their choices. On the contrary, other groups think that stereotypes are common in Chinese society, but they all believe that these stereotypes will not affect their professional and career choices. They re-emphasized the importance of personal interests. Five groups of women with higher education all indicated that they would work and have different pursuits in their careers. However, some participants said that the inequality of women's employment in society is indeed obvious. For example, a participant from an American high school said that the parents of students studying in ordinary high schools in China expect female students to do some stable jobs "suitable for women". Because they think that women are responsible for raising the next generation and, thus, they will be easily dismissed by big companies. However, the participant herself indicates that she has no such concern and believes that there is no so-called "career suitable for women", and occupations should not be differentiated by gender.

Although these five groups of participants did not directly mention the impact of gender inequality on the overall economic progress of society, they show the attitudes of a contemporary female under different education systems towards the choice of major or occupation. That is, even if gender inequality exists in education and employment, they are very willing to break this gender stereotype, which is basically consistent with the attitude expressed in the literature review.

5. CONCLUSION

This research studies how school, family, and economic factors influence female students' major or career choices. This study finds that firstly, from schools' perspective, students can receive information about gender stereotyping from school and the extent of influence enhances; hence, the school has the responsibility to eliminate or reduce gender stereotypes; secondly, from family's perspective, the majority of students (over 80%) are not affected by the gender stereotypical views from their family (members) on major career choice, indicating the trend of the young generation getting rid of the influence of traditional gender stereotype from their family members on career and major choice; what's more, the extent of gender stereotypical view of family members is positively proportional to the economic status of the family; finally, from the economic perspective, gender



inequality in education and employment has a negative impact on economic growth. Also, it contributes considerably to gender stereotypes. These findings show that the school still negatively instills gender stereotypes to female students, and this will limit their major or career choices; secondly, even though some families still deliverer gender stereotypical views on major and career choices to the young generation, the majority of female students today have shown a tendency to escape from its influence and pursued their own dream careers or majors. The education system, especially schools, the Ministry of Education, should pay attention to this study since they should modify the textbooks to eliminate any message of gender discrimination tendency within it. The government should promote gender equality in China since this closely relates to the development of the economy in China. In conclusion, this paper contributes to inspiring schools, families, and society to reduce the gender gap to a large extent.

REFERENCES

- [1] Law, K., & Chan, A. (2004). Gender Role Stereotyping in Hong Kong's Primary School Chinese Language Subject Textbooks. Asian Journal Of Women's Studies, 10(1), 49-69. https://doi.org/10.1080/12259276.2004.11665965
- [2] Wong, W., Shi, S., & Chen, Z. (2018). Students from single-sex schools are more gender-salient and more anxious in mixed-gender situations Result from high school and college samples. PLOS ONE,13(12), e0208707.
- [3] Stork, E., & Hartley, N. (2014). Gender And Cross Cultural Perceptions Of Professors Behaviors: A Comparison Of Chinese And American College Students. Contemporary Issues In Education Research (CIER),7(2),95.
- [4] Chen, E. S. L., & Rao, N. (2011). Gender socialization in Chinese kindergartens: Teachers' contributions. Sex roles, 64(1-2), 103-116.
- [5] Jungen, K. A. (2008). Parental influence and. career choice: How parents affect the career aspirations of their children.
- [6] Otto, L. B. (2000). Youth perspectives on parental. career influence. *Journal of Career Development*, 27(2), 111-118.
- [7] Simpson, J. C. (2003). Mom matters: Maternal. influence on the choice of academic major. Sex Roles: A Journal of Research, 48(9-10), 447–460. https://doi.org/10.1023/A:1023530612699
- [8] Muthukrishna, N., & Sokoya, G. O. (2008). Gender differences in pretends play amongst school children in Durban, Kwazulu-Natal, South Africa. *Gender and Behaviour*, *6*(1), 1577-1590.

- [9] Hilton, J. L., & Fein, S. (1989). The role of typical diagnosticity in stereotype-based judgments. *journal of Personality and Social Psychology*, 57(2), 201.
- [10] Nisbett, R. E., Zukier, H., & Lemley, R. E. (1981). The dilution effect: Nondiagnostic information weakens the implications of diagnostic information. *Cognitive psychology*, *13*(2), 248-277.
- [11] Zukier, H. (1982). The dilution effect: The role. of the correlation and the dispersion of predictor variables in the use of nondiagnostic information. *Journal of Personality and Social Psychology*, 43(6), 1163.
- [12] Jacobs, J. E., & Eccles, J. S. (1992). The impact of mothers' gender-role stereotypic beliefs on mothers' and children's ability perceptions. *Journal of personality and social psychology*, 63(6), 932.
- [13] Li, C., & Kerpelman, J. (2007). Parental influences. on young women's certainty about their career aspirations. *Sex roles*, 56(1-2), 105-115.
- [14] Davies, Scott and Neil Guppy. 1997. "Field of Study, College Selectivity, and Student Inequalities in Higher Education." Social Forces 75:1417–38.
- [15] Collins, P. (1998). It's All In the Family: Intersections of Gender, Race, and Nation. Hypatia: A Journal of Feminist Philosophy, 13, 62.
- [16] Baliamoune–Lutz, M., & McGillivray, M. (2015). The impact of gender inequality in education on income in Africa and the Middle East. *Economic Modelling*, 47, 1-11.
- [17] Assaad, R., Hendy, R., & Salehi-Isfahani, D. (2019). Inequality of opportunity in educational attainment in the Middle East and North Africa: Evidence from household surveys. *International Journal of Educational Development*, 71, 102070.
- [18] Klasen, S., & Lamanna, F. (2009). The impact of gender inequality in education and employment on economic growth: new evidence for a panel of countries. *Feminist economics*, *15*(3), 91-132.
- [19] Beach, J. M. (2008). Globalization & Vocational. Education: Liberation, Liability, or Both? Reclaiming Class: Women, Poverty, and the Promise of Higher Education in America. Vivyan C. Adair and Sandra L. Dahlberg, eds. Philadelphia: Temple University Press, 2003. 269 pp. 69.50(Hardcover), 22.95 (Paperback). Globalizing Education for Work: Comparative Perspectives on Gender and the New Economy. Richard D. Lakes and Patricia A. Carter, eds. Mahwah, New Jersey: Lawrence Erlbaum Associates, 2004. 221 pp. 49.95(Hardcover Educational Studies, 44(3), 270-281.