

## Gender-specific differences in professional choices in Chinese cultural contexts

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### Abstract

Gender socialization, as one type of socialization, start from a very early stage and continue after childhood. Among the gender socialization from adolescents to early adults, college is one of the most special periods. At the same time, college is also the time for people to choose their majors, which are more detailed and various than what they have in previous educations. Although researches already show the relationship between the gender gap and the choice of major in college, there are few research studies that analyzed this gap from the perspective of gender socialization based on the Chinese cultural context. An unstructured interview was conducted with 10 students (male = 5, female = 5) from a Chinese-American jointly established university to investigate the effect of gender differences on the major choice of Chinese university students. Data collected from interviews were analyzed inductively using the six steps described in Braun and Clarke's thematic analysis methodology. Two researchers considered and coded all the interview contents separately, and met regularly to discuss emerging codes, finalize the coding scheme, and code the same sections simultaneously to compare results. Results revealed the “gendering” of major and career is an important element that influences the decision of both male and female students, and female students tend to pay more attention to this topic. For the reasons for choosing their major, male students paid more attention to their personal ability and the employment prospects of the major, while female students focused more on their personal interests, the gender bias in the workplace, and the views of parents. However, there was no significant gender difference in future major and career planning. This study provides new information on the differences in gender socialization in genders, and associates it with the reason for the choice of majors. The researchers hope that faculty and administrators will be better able to support and guide students of different genders to make appropriate major choices.

**Keywords:** Gender socialization, Major, College students, China

## **Introduction**

Socialization refers to the process of internalizing social norms and ideologies, which is also the means to achieve social and cultural continuity (Macionis & Gerber, 2015). Since the progress of socialization includes both learning and teaching, Brim (1996) defines socialization as “the processes by which people acquire knowledge, skills, and dispositions that make them more or less effective members of society”. According to Rocher (1989), human action is sociable, thus, people need a process of being guided by collective or common norms or rules, and this process is socialization. In other words, without socialization, human activities would lose their sociability. Therefore, socialization and the factors associated with it are worth being studied by researchers from sociology and other fields.

Socialization is a complex concept. The types of socialization can be divided based on various criteria (e.g., socialization factors, the assessment of society, and awareness of how socialization process) (Crisogen, 2015). The directions of socialization study, although they might have different types of socialization as their research subjects, have already developed towards both biological and cultural perspectives (Bugental & Grusec, 2007). These two typical directions make gender socialization, which is decided by both innate gender and social perspective of different genders, deserves to be discussed. Gender socialization is a universal process in which someone develops beliefs about gender roles and expectations (Stockard, 2006; Yang & Gao, 2019). This involves two stages, the first stage is the social construction of gender roles, which refers to the expectations of family, school, and culture for different gender roles. And the second stage, which is the internalization of gender role expectations refers to the individual’s gender norms and gender attitudes (Davidson & Gordon, 1979; Wang, 2011; Yang & Gao, 2019).

Gender socialization starts from a very early stage. Based on the basic facts of sexual form and function, each society produces a system of social rules and customs for different genders. Through observation and learning, children attempt to master and internalize this system, begin to learn to distinguish and label themselves and others according to gender, and learn to identify attributes, attitudes, and behaviors that are considered appropriate for each gender (Amin et al., 2018). The influence of parents on their children's gender socialization is important in the early years. According to traditional gender norms, parents may expect different abilities from their children of different genders (Hand et al., 2017; Hyde et al., 2008; Yang & Gao, 2019). However, gender socialization develops not only in childhood. Through previous research, gender-specific personal expectations and stereotypes from family, school, and culture have lasting and long-term effects on young people's achievement motivation, education, and career choices. (Eccles, 2011; Jacobs & Bleeker, 2004; Meece, et al., 2006; Yang & Gao, 2019).

Among the longtime of gender socialization after childhood, college is one of the most special periods. There are two main reasons for this: first, college students have been away from childhood for a long time, but as young people who have not yet entered society, the

influence of family and school still exists; second, the university is one of the important links in the gender socialization process, the impact of universities on students can be analyzed through socialization (Weidman, 1989).

At the same time, college is also the time for people to choose their majors, which are more detailed and various than what they have in previous educations. More important is that the influence of major choice in university is long and even life-span. The experiences in undergraduate college with one major might first make an effort on the choice of future major in graduate university. Besides, on college campuses, young people are guided by their professors to lay the foundation for their career path, trying to translate what they learn on college campuses into meaningful careers that will allow them to survive in their future society (Platt, 2020). A clear major choice can decide not only the career direction, but also the retention of students in specific jobs (Willcoxson & Wynder, 2010). Thus, it is necessary to identify the factors that influence the major choice of students in college, and its effect on the future alternatives of majoring in upper-level education or career.

Plenty of research already shows the relationship between the gender gap and the choice of major in college (Porter & Serra, 2020; Turner & Bowen, 1999; Zafar, 2013). However, there are a few research analyzes this gap from the perspective of gender socialization based on the Chinese cultural context. In order to explore this issue, we will construct a qualitative study based on a sample of Chinese university students in different majors. The results of this research are expected to provide some guidance for Chinese colleges and universities, as well as high schools.

Considering the close connection between gender socialization and gender identity (Carter, 2014), Stryker's identity theory is important for giving this research more specific support. This theory explains that a person will play a role consistent with the role expectations associated with his or her identity, and look for situations that provide opportunities to perform the identity (Carter & Mireles, 2007). Thus, people in one specific major tend to follow the expectations of society students in this major. At the same time, choosing one major might become an opportunity for students to perform to their expectations of this major. Stryker's identity theory can lead this study to explore the motivation of students' major choosing.

This study will investigate the effect of gender differences on the major choice of Chinese university students, with following are our research questions:

1. Are there any differences in gender socialization after childhood among people of different genders?
2. How does the difference in gender socialization affect the choice of major?
3. Does further gender socialization during college have any further influence on the choice of major?.

## Methodology

Participants for this study are ten undergraduate students (5 males, 5 females) that were recruited from a Chinese-American jointly established university by using multi-stage sampling. This university has four colleges: College of Business & Public Management, College of Liberal Arts, College of Architecture & Design, and College of Science and Techno. The participants are selected from all these four colleges, and each college has at least one student participate in this research.

Table 1. Demographics of Participants

| No. | Level     | Gender | Major                       | Interview Language |
|-----|-----------|--------|-----------------------------|--------------------|
| R1  | Junior    | Male   | Finance                     | Mandarin           |
| R2  | Senior    | Female | Finance                     | Mandarin           |
| R3  | Junior    | Female | Psychology                  | Mandarin           |
| R4  | Junior    | Female | Visual Communication Design | Mandarin           |
| R5  | Sophomore | Male   | Computer Science            | Mandarin           |
| R6  | Sophomore | Female | Marketing                   | Mandarin           |
| R7  | Sophomore | Male   | Architectural               | Mandarin           |
| R8  | Junior    | Male   | Accounting                  | Mandarin           |
| R9  | Junior    | Female | Mathematical Sciences       | Mandarin           |
| R10 | Sophomore | Male   | English                     | Mandarin           |

Data for this qualitative study were collected through in-depth face-to-face unstructured interviews. Participants' consent was obtained verbally. They were informed that their participation was voluntary and that their responses would be anonymous. A written survey instrument was used to collect demographic. The interview questions were developed based on the literature and the theoretical framework of this study, with a focus on the choice of major. Participants were asked to tell the whole story of how they chose their major, including 1) the majors they initially considered and later rejected, 2) the set of factors related to their final choice of major, 3) their current views on the decision, and 4) their favorite and least favorite majors.

The interview questions were piloted with two students prior to data collection to ensure clarity and to identify any potential problems prior to data collection. The pilot interviews were considered tests only and were not included in the analysis. Interviews were conducted in Mandarin and each interview lasted between 30-50 minutes. All interviews were audio-

recorded and transcribed verbatim, and were later translated and transcribed into English. Data were analyzed inductively using the six steps described in Braun and Clarke's (2006) thematic analysis methodology. The analysis consists of 1) being familiar with data, 2) generating initial code, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report (Braun & Clarke, 2006). Both authors worked together to code the interview data and allow for new codes to emerge throughout the data analysis process. To ensure and verify inter-rater reliability, the two raters met regularly to discuss emerging codes, finalize the coding scheme, and code the same sections simultaneously to compare results. Then, two authors searched, reviewed, and named themes from data together and drew the final conclusion.

## **Results and Discussion**

### **The Differences of Gender Socialization After Childhood: From Choice of Major**

When the participant was asked questions about gender and major choice, more than two-thirds of the respondents mentioned issues related to the "gendered" nature of their major. Science disciplines such as computer science and engineering were considered more suitable for males; liberal arts disciplines such as library management and linguistics were considered more suitable for females. Although these data are not conclusive, it is clear that there is a general consensus that majors are "gendered". Usually, the idea of "gendering" stems from the fact that different majors require different ways of thinking. Thus, the "gendering" of majors can be considered a result of people's perception of the association between gender and thinking ways (Harding, 1986; Keller, 1995; Mullen, 2013). For example, a male student from a computer science major said that

I think it [gender] is still a big influence, which can be seen from the ratio of men and women in the profession, because the girls' rational thinking is a little bit weaker in traditional concepts. (R5)

At the same time, there is a similar "gendering" of career choices. For example, in the following passage, a female student describes her thoughts about her career choice. She describes what careers women are typically advised to pursue and why she did not make such a choice:

Actually, I had no idea about many majors before I entered college, but I had a lot of novel ideas in my head. So, I didn't want to take many conventional paths, such as civil servants, doctors, teachers, and other careers that girls are often advised to take. (R6, marketing)

This student spoke about her determination to achieve her dreams and how this influenced her choice of major. In her opinion, many of the careers that would be recommended for girls to choose did not help her achieve her goals, so she did not choose them. Such thoughts were reflected in the responses of other students, although their reasons varied. For example, one

female student from a psychology major said that: “My parents did not particularly oppose at first, but then they felt that it is difficult for psychology students to find a job. They told me that girls need to be more stable, and finance major or becoming a civil servant will be the better choice.” However, this female student ended up choosing psychology because she really liked it.

What is more noteworthy is that behaviors like this, which go against social perceptions and parental advice in choosing a major or career, are more common among female students. Three of the five female students mentioned this idea, indicating that they went against some of their parents' advice or did not choose a career that was traditionally considered appropriate for women. Male students, on the other hand, showed that their parents approved of their choice of major or followed their parents' advice to choose a career that was more suitable for male students. For example, one student described his experience in choosing a major this way:

They [my parents] just think if I choose this major [librarianship], it's a bit of a waste for a science student. And the prospect of finance was really good at that time, so they all urged me to choose finance. (R1, male, finance)

Also, although all participants were asked questions about gender and choice of major, female students mentioned the topic much more often than male students. Many female students cited gender as an important factor influencing their choice of major before the researcher even mentioned this topic. From this perspective, female students are significantly more concerned about gender differences than male students, and their attitudes toward gender differences are different from those of male students. More girls tend to face the gender difference and their effects, and try to change the stereotypical effects of gender differences with their own choices. Boys, on the other hand, were more likely to choose to avoid the negative effects that gender differences may have on them, such as being identified as having chosen a more feminine major. For example, one male student said, “Traditionally, it [librarianship] is weird for boys to choose this major because it is quite sissy.” A possible explanation for this is that males will face a stronger stigma when entering professions related to femininity or femininity (Goyette & Mullen, 2006).

At the same time, whether female students regard gender differences, or even gender bias, as one of the important factors affecting the choice of majors, also depends on the environmental factors around the students. According to the answers, these environmental factors mainly include two aspects: family and school. In China, the choice of major is considered a family affair, so it is common for parents to give relevant advice (Lee & Morrish, 2012). At the same time, whether parents convey the concept of gender differences in daily life also greatly affects students' choices and cognition. Another important factor, the school, plays an important role in guiding students' understanding of gender. The comments of the following two female students can well reflect the influence of these two factors on their concept of gender socialization:

At the same time, I think my family doesn't seem to put much emphasis on gender, so it [gender differences] didn't affect me. (R9, female, mathematical Sciences)

But the teachers at our school are quite good, and we don't have such ideas [gender bias]. We are very open and tolerant. (R4, female, visual communication design)

In sum, the differences in gender socialization after childhood between different gender can be reflected by students' opinions towards majors and career choices. The “gendering” of major and career is an essential element that influences the decision of both male and female students, which stems from the “gendering” of thinking ways (Harding, 1986; Keller, 1995; Mullen, 2013). However, female students tend to pay more attention to the “gender” topic, and challenge the bias caused by gender differences. In contrast, male students tend to choose majors that are considered not associated with femininity, or they already choose the major as the expectation of their parents. The idea of gender differences is influenced by the institution such as family and school, which are two common environmental elements.

### **The differences of influences elements on choice of major in different gender**

By analyzing the responses of these ten participants, researchers summarized the six themes that influenced students' choice of major: Self, Family, Peers, Social environment, Resources, and Professors. Among these six themes, Self was mentioned most often (55 times); Professor was mentioned the least (3 times). Each theme was categorized and coded into one to five keywords, and the number of times that these keywords were mentioned was also counted. Among them, the most frequently mentioned ones were personal interest in Self and employment prospects in Social Environment. The detailed classification criteria and their corresponding numbers are shown in Table 2.

*Table 2. Themes and codes of responses*

| Themes           | Keywords                         | Specific Example                                                | Number of mentions |        |              |
|------------------|----------------------------------|-----------------------------------------------------------------|--------------------|--------|--------------|
| <b>Self-55</b>   | personal interest                | /                                                               | Male               | Female | <b>Total</b> |
|                  | satisfied                        | comfort zone                                                    | 7                  | 15     | <b>22</b>    |
|                  | bias                             | gender trend                                                    | 3                  | 3      | <b>6</b>     |
|                  | personal goal                    | for graduated school                                            | 2                  | 4      | <b>6</b>     |
|                  | personal ability                 | didn't have enough points, skills improvement, self-development | 1                  | 3      | <b>4</b>     |
| <b>Family-18</b> | parents' views                   | /                                                               | 14                 | 3      | <b>17</b>    |
|                  | economic situation               | /                                                               | 6                  | 11     | <b>17</b>    |
| <b>Peers-10</b>  | guidance and advice from seniors | /                                                               | 1                  | 0      | <b>1</b>     |

|                               |                                  |                                             |    |    |    |
|-------------------------------|----------------------------------|---------------------------------------------|----|----|----|
|                               | sense of belonging to classmates | /                                           | 0  | 2  | 2  |
|                               | peers' suggestion                | /                                           | 1  | 1  | 2  |
| <b>Social Environment -37</b> | employment prospects             | salary, working life, competitive advantage | 5  | 1  | 6  |
|                               | career recognition               | /                                           | 14 | 8  | 22 |
|                               | career status                    | /                                           | 0  | 1  | 1  |
|                               | gender bias in workplace         | weaker in profession                        | 2  | 1  | 3  |
| <b>Resources-6</b>            | available contacts               | /                                           | 2  | 10 | 12 |
|                               | available assets                 | /                                           | 3  | 2  | 5  |
| <b>Professors-3</b>           | guide                            | /                                           | 2  | 0  | 2  |
| <b>Other</b>                  | Policy                           | /                                           | 1  | 2  | 3  |

Note: N=10

Also, researchers counted the number of times male and female students mentioned these keywords separately. Interestingly, there is a significant difference between men and women in the number of times some of these keywords are mentioned. Two keywords were mentioned more frequently by male students than by female students: personal ability (male: 14 times; female: 3 times) and employment prospects (male: 14 times; female: 8 times). Three keywords were mentioned more frequently by female students than by male students: personal interest (male: 7 times; female: 15 times), parents' views (male: 6 times; female: 11 times), and gender bias in the workplace (male: 2 times; female: 10 times). The difference in the number of times that these keywords were mentioned reflects the difference in the priority and importance that male and female students place on the factors that influence their choice of major.

From the above data, it can be seen that in the theme of Self, male students focus more on whether their ability to be competent in the major, while female students consider whether they are interested in the major. In the theme of Social Environment, employment prospect receives more attention from male students, while gender bias in the workplace is more of a topic of concern for female students. In addition, female students mentioned that their parents' views influenced them more often than male students, but as mentioned above, this does not necessarily mean that they would follow their parents' advice.

Basically, male and female students have some significant differences. Male students pay more attention to their personal ability and the employment prospects of the major, while female students focus more on their personal interests, the gender bias in the workplace, and the views of parents.

### **The impact of gender in future planning**

In describing their future plans, most of the participants had only a vague definition of what job they wanted to do in the future, mentioning only that they wanted to work in a job related to their career. However, most females responded to the question with clearer future goals than males, for example, one female described her future plan in this way:

I chose business because I had the idea of entrepreneurship. When I was in high school, usually the senior class was the president of the club, but I started my own club as a freshman and I still want to use the name of the club I started as the name of my company afterwards. (R6, female, marketing)

In addition, more than half of the students mentioned applying to graduate schools and reported detailed plans. In this case, most students do not see the major as a discipline but as a tool to achieve their career goals, as they have more detailed ideas about their subsequent academic plans (Mullen, 2013). Here are the responses from two students:

Business is a more general subject, and the knowledge I learned in my undergraduate studies will allow me to better integrate into my major when I apply for graduate school. For example, I might go into finance afterwards to expand my knowledge. (R8, male, Accounting)

I would choose math because I think it's better to apply to Graduate School. My current plan, including my parents', is to apply for graduate school and then do a PhD, and then return to my home university to become a lecturer. (R1, male, Finance)

In fact, the difference between genders in this area of future planning is relatively small. Both males and females reported similar future plans, such as applying to graduate school or starting a business. This is also related to the special campus environment brought by the Sino-foreign joint university in which the interviewees are studying.

In conclusion, more than half of the respondents chose a graduate school or job-related to their major, or in the same field. And, there was no significant difference in gender in the responses to this question.

### **Conclusion**

This study takes the Chinese students in a Chinese-American jointly established university as context, provides new evidence for the differences in gender socialization in genders, and associates it with the reason for the choice of majors. According to the results, differences in gender socialization of different sexes after childhood can be reflected in students' perceptions of major and career choices. There are some significant differences between male and female students in the elements influencing their choice of major. There were no significant gender differences between men and women when it came to choosing graduate programs and future jobs.

By increasing knowledge related to gender socialization differences among students of different genders and their different understandings of their major choices, the researchers hope that faculty and administrators will be better able to support and guide students of different genders to make appropriate major choices and reduce the brain drain of students due to their own choices being constrained by gender.

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## **Appendix**

### **Interview Questions**

- Q1: Did you choose your own major by yourself in college?
- Q2: Have you ever thought about your future major or career before?
- Q3: Do your parents approve of your decision?
- Q4: Did your peers give you any advice on your major choice?
- Q5: Did your professors and classmates have any influence on your choice of major?
- Q6: How do you think the social environment affects your choice of major?
- Q7: Do you think resources such as connections in your choice of major will have a big impact on you?
- Q8: So you chose this major solely because of the wishes of your parents? Do you like your current major?
- Q9: Are you satisfied with your major?
- Q10: What do you think college means to you?
- Q11: After you actually entered college, were you satisfied with your major?
- Q12: If you were given another chance would you still choose this major?
- Q13: What is your least favorite major?
- Q14: In your childhood or when you fill out the college entrance examination when you have heard a statement, such as certain majors are more suitable for boys and some more suitable for girls?