The Role of Cultural and Socioeconomic Capital in Students' Occupational Aspirations: United States, Finland, and China

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Abstract: Utilizing PISA 2018 data and Bourdieu's theory of cultural capital, this cross-cultural study examines the influence of cultural and socioeconomic capital on occupational aspirations of high-school students in the United States, Finland, and China. Principal Component Analysis (PCA) and Analysis of Covariance (ANCOVA) revealed cultural context shapes the impact of cultural/socioeconomic capital on students' career aspirations. Access to cultural and socioeconomic resources slightly elevated occupational aspirations among students in the US and Finland but slightly lowered occupational aspirations among Chinese students. This underscores the importance of considering cultural context when examining how forms of capital influence students' occupational aspirations, providing insights for policymakers/educators aiming to foster equitable educational opportunities.

This paper examines the influence of cultural and socioeconomic capital on individuals' occupational aspirations in Finland, the United States, and the B-S-J-Z areas of China (Beijing, Shanghai, Jiangsu, and Zhejiang). These countries offer distinct economic and cultural contexts. Previous research has highlighted social status, parental expectations, family, and cultural and socioeconomic capital that shape occupational aspirations (Rojewski, 2005). Structural factors and spheres of influence, such as social class, gender, and ethnicity, also affect aspirations (Archer, DeWitt, & Wong, 2014). However, prior studies have not explored how these factors interact in different cultural and socioeconomic contexts. To address this gap, our study examines how cultural and socioeconomic capital shape occupational aspirations among high-school-age students in three countries. By analyzing PISA 2018 data in the quite dissimilar contexts of China, the United States, and Finland, we attempt to understand how socioeconomic/cultural capital factors influence student aspirations. Our study emphasizes the importance of considering various types of capital to understand the complex factors shaping occupational aspirations. The study sought to explore how these factors influence students' desire to pursue career paths associated with a certain level of education.

As a theoretical framework, the study adopted Bourdieu's (1984, 1986) theory of social, economic, and cultural capital. According to this theory, economic capital refers to an individual's financial resources, while cultural capital encompasses non-financial assets such as knowledge, skill, and education. Social capital, on the other hand, is beneficial resources derived from social networks and relationships. These types of capital tend to reinforce each other and confer advantages upon those who possess them when seen as positive aspects of a person's portfolio. However, their value may vary depending on society's cultural norms and values. For example, in some cultures, educational qualifications and prestigious job titles may be highly valued as forms of cultural capital, whereas in others, family background and social connections may be more important. Overall, Bourdieu's theory provides a helpful framework for understanding how different forms of capital operate in society and how they can contribute to social inequality. By examining the interplay between economic, cultural, and social capital, we can better understand how power and privilege are distributed in different social contexts.

Several studies have highlighted the various factors that shape individuals' occupational aspirations, including social status, parental expectations, school resources, family, and cultural and socioeconomic capital. For instance, Sewell et al. (1957) found that youth's educational and occupational aspirations were associated with the social status of their families. In a study by

Moulton et al. (2018), parental socioeconomic background and involvement in learning influenced young children's occupational aspirations, underscoring the importance of early identification of antecedents of children's aspirations. The family also plays a critical role in shaping career aspirations and expectations. Hou and Leung (2011) found significant gaps in occupational prestige and sex type between the vocational aspirations of high-school students and their parents. Parental education, gender of the student, and school type were found to have a substantial effect on the prestige expectation and aspiration gap. Furthermore, Rowan-Kenyon et al. (2011) showed that school resources positively correlated with students' occupational aspirations and their understanding of the education required to achieve these aspirations, highlighting the importance of career development plans for low-resource schools. Aspirations are also influenced by structural factors such as social class, gender, and ethnicity, as well as different spheres of influence such as home/family, school, hobbies/leisure activities, and TV (Archer et al., 2014). These factors interact in complex ways, shaping individuals' occupational aspirations differently in different cultural and socioeconomic contexts.

To examine from a cross-cultural perspective connections between types of capital and students' occupational aspirations, we focused on three countries presenting distinct cultural and economic contexts: China, the United States, and Finland. With its collectivistic society and rapidly growing economy, China presents a unique perspective on how cultural and economic factors impact individuals' occupational aspirations. In contrast, American individualistic society and well-established market economy provide a different context for examining this issue. Finland, known for its social welfare policies, gender equality, and high-quality education system, offers yet another perspective. According to the Social Progress Index (Social Progress Imperative, 2024), Finland has the highest social progress out of the three countries, while China has the lowest social progress score (and rank) out of the three nations in our study.

While previous studies have examined the impact of various factors on individuals' occupational aspirations, such as social status, parental expectations, family, and cultural and socioeconomic capital, they have not explored how these factors interact in different cultural and socioeconomic contexts to shape occupational aspirations. Understanding the various factors that shape individuals' occupational aspirations is crucial for policymakers and educators. By identifying antecedents of individuals' aspirations, policymakers and educators can develop strategies that support individuals in achieving career goals. Each country's distinct features provide perspective on how occupational aspirations vary across cultural and economic contexts.

Methods

Study Design: We used a correlational design to examine the relationship between high-school students' occupational aspirations and cultural and socioeconomic capital. The study consisted of two stages in the following sequence: Principal Component Analysis (PCA) and Analysis of Covariance (ANCOVA) to see how much and in what ways (if any) the effects of cultural and socioeconomic capital on 15-year-old students' occupational aspirations differed across the three different cultural contexts of the United States, Finland, and B-S-J-Z China.

Data: We collected data from the PISA 2018 dataset, which is publicly available and includes information on cultural capital, socioeconomic capital, occupational aspirations, and student demographics. PISA 2018 data randomly selected students born in 2001 from cuontries around the world, including the United States, Finland, and China. The total number of participants from

all participating countries was 612,004, with 3,820 participants from the United States, 3,890 from Finland, and 10,075 from B-S-J-Z China. The selection of participants from different countries allows for a diverse representation of cultural and educational backgrounds, enhancing the generalizability of the study findings. A randomized selection process also ensures that the participants represent the target population and minimizes potential bias in the sample.

Variables: Questions from PISA 2018 are the variables we included in our analysis. However, we decided to include them in separate categories because they reflected different domains. For example, a bloc of questions asked: How many of these are at your home? Different versions of the question listed different sorts of things: musical instruments and books seemed to connote cultural capital, defined in terms of access/exposure to cultural/educational resources at home. However, TVs, cars, cell phones with internet, computers with internet, quiet spaces to study, and baths/showers in the house spoke more directly to socioeconomic capital, understood in terms of parents' occupation and income. For ease of analysis, we separated responses according to our main independent variables, cultural and socioeconomic capital. Student occupational aspirations, the dependent variable, were assessed via one question on PISA 2018: What kind of job do you expect to have when you are about 30 years old? The question was followed by a request to type a job title in the provided space. Answers were scored using the *International Standard Classification of Occupations-08* (ISCO-08), which included highly skilled jobs at the top of the scale (International Labour Office, 2007). The higher a country's relative score, the more likely students from that country were to express occupational aspirations for jobs placed higher on the ISCO skill and qualifications scale.

Data Analysis and Findings

For this correlational research, we utilized two analysis stages: PCA and one-way ANOVA & ANCOVA. This section presents the steps of each of these analyses with results.

PCA: In the first stage, we performed two principal component analyses to observe the trends and create further components representing cultural and socioeconomic capital constructs. We selected and categorized survey questions that fell under cultural and socioeconomic capital concepts. The first statistical component, which best accounts for all the questions, was extracted and saved as the cultural capital component in our analysis. Overall, the loading values ranged from -.67 (number of books in the home) to .62 (classic literature in the home), indicating a moderate to strong association with cultural capital. In the same vein, socioeconomic capital was described by answers to survey questions. Similarly, we extracted and saved the first component as the socioeconomic capital component. The extracted component for socioeconomic capital indicated a loading value ranging from -.64 (computer in home for schoolwork) to .77 (number of computers in home), showing a moderate to strong association with socioeconomic capital. Using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the extracted cultural capital component (Kaiser, 1970; Kaiser & Rice, 1974), the PCA analysis explained 80.1% of the total variance, with a significance of .00 (<.05), indicating the principal component captured a significant portion of the influencing factors of cultural capital. As for social-economic capital, the PCA analysis, again using KMO, explained 85.5% of the total variance, with a significance of .00 (<.05), indicating that the principal component captured a significant portion of the influencing factors of social-economic capital.

ANOVA and ANCOVA: In the second stage, we performed a one-way ANOVA and ANCOVA in examining the dependent variable of students' occupational aspiration across the three countries, the United States., China, and Finland, as variables intervening upon cultural capital and socioeconomic capital. We compared students' occupational aspirations across the three countries with and without the influence of cultural capital and socioeconomic capital.

First, analysis was conducted without covariates (cultural capital and socioeconomic capital) to determine the effect of different countries on students' occupational aspirations. Without the influence of cultural capital and socioeconomic capital, students in China (B-S-J-Z) had the highest estimated marginal means of occupational aspirations at 67.81, with a slightly lower score of occupational aspirations at 67.42 from the American students and a much lower occupational aspiration score at about 60.00 from Finland. Then, the analysis was conducted with the inclusion of two covariates: cultural capital and socioeconomic capital. The estimated marginal means of students' occupational aspirations in the United States and Finland were about 1 point higher than those without the covariances. However, the estimated marginal means of occupational aspirations of (B-S-J-Z) Chinese students slightly decreased to 67.79. Therefore, the estimated marginal means of students' occupational aspirations in the United States became the highest at 68.19; however, students in Finland still possessed the lowest at 60.75.

Discussion

The PCA findings demonstrate that cultural and socioeconomic capital influence individuals' occupational aspirations. The results indicate that PCA captured a substantial portion of the variance in both cultural and socioeconomic capital, with moderate to strong associations between the two types of capital and occupational aspirations. These findings align with previous studies that have shown the significant impact of socioeconomic and cultural factors on occupational aspirations (Archer et al., 2014; Elgar et al., 2011; Sewell et al., 1957).

The ANOVA and ANCOVA results indicate that the impact of socioeconomic and cultural capital on occupational aspirations varies across different cultural and socioeconomic contexts. Without covariances, the estimated marginal means of occupational aspirations were highest among students in China, followed by those in the United States, and the lowest were among those in Finland. However, with covariances, the estimated marginal means of occupational aspirations in the United States became the highest, whereas those of Chinese students slightly decreased, and Finnish students, despite a small increase, remained the lowest. These results suggest that the influence of cultural and socioeconomic capital on occupational aspirations can be affected by other factors, including societal values (Hou & Leung, 2011; Moulton et al., 2018; Rowan-Kenyon et al., 2011). Comparing the countries, it can be seen that students' occupational aspiration scores in Finland are much lower under both conditions, with and without covariance, than those of China (B-S-J-Z) and the United States. The results indicate that Finnish students possess a relatively lower expectation of their future occupational status. This finding may have resulted from factors in socio-cultural values (Virolainen & Stenstrom, 2014; World Happiness Report, 2023).

Limitations and Future Directions

While this study provides insight into the relationship between cultural and socioeconomic capital and occupational aspirations among high-school students in three countries, we must acknowledge some limitations. First, the data collected from China was limited to only four

participating areas: Beijing, Shanghai, Jiangsu, and Zhejiang, which may only represent part of the country. Additionally, the limited sample size from China may have resulted in a biased sample, which limits the generalizability of the findings to other parts of China. Caution should, therefore, be exercised when applying the results to other regions in China. Last, the study was restricted by the number and type of questions already pre-designed in PISA 2018, which prevented the construction of a more robust set of questions. While the selected questions fit the construct, inclusion of other, more relevant questions, such as exposure to foreign cultures and travel abroad, could have provided a more comprehensive understanding of the factors influencing cultural capital.

Future research should aim to expand these findings by including more representative samples from other regions and countries and by incorporating a broader range of variables to capture the complex dimensions of cultural and socioeconomic capital. Additionally, qualitative studies could provide deeper insight into the unique factors influencing students' aspirations in various cultural contexts. By addressing these areas, we can better understand and support students' diverse educational and occupational trajectories worldwide.

Conclusion

This study highlights the role of cultural and socioeconomic capital in shaping the occupational aspirations of high-school students across three diverse cultural contexts: the United States, Finland, and China. By leveraging PISA 2018 data and applying Bourdieu's theoretical framework of varieties of capital, our analysis underscores that the interplay between cultural and socioeconomic capital significantly varies depending on each country's cultural norms and values. Surprisingly, our findings indicate that while B-S-J-Z Chinese students generally exhibited the highest occupational aspirations, these aspirations were negatively affected by cultural and socioeconomic capital considerations. Perhaps collectivist traditions still outweigh opportunities for social mobility from a growing economy. In contrast, cultural and socioeconomic capital positively impacted occupational aspirations in the United States and Finland. The well-established market economy of the United States presents culturally and socioeconomically well-positioned students with opportunities for upward or parallel mobility. Despite the positive effect on Finnish students' occupational aspirations, Finns' lower overall occupational aspirations could be attributed to broader societal factors such as social welfare policies and vocational training priorities. The study suggests that in some but not all cultures, enhancing access to cultural and socioeconomic resources can potentially mitigate disparities in occupational aspirations among high school students. These insights are particularly relevant for educators and policymakers who are focused on creating supportive educational environments tailored to the diverse needs of students.

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