

Exploring the influence of gender stereotypes in school education on students

Jingyi Wu*

The School of Foreign Languages, Hunan University of Finance and Economics, Changsha,
410205, China

Abstract. Gender stereotypes have long been a contentious issue in education by affecting self-definition, academic performance, and career paths. Based on the concept of stereotype, this paper intends to present and discuss the phenomena of the long-term impact of stereotypes on both male and female students. The findings show that stereotypes promote traditional roles: girls are frequently discouraged from STEM disciplines due to a perceived inferiority in science and mathematics, despite practical evidence of equivalent or higher performance. Boys, on the other hand, are pressured to comply to ideals of STEM dominance and aggression, while being criticized for excelling in 'feminine' areas such as the arts. These biases raise early, influenced by teachers, parents, and the media, and contribute to stereotype threat, a psychological weight that inhibits achievement. For girls, this results in under-representation in STEM jobs and low self-efficacy; for boys, it causes mental health issues and rigid gender expectations. The paper claims that such biases restrict progress in society by wasting potential and increasing economic imbalances. To reduce these negative effects, the research suggests for educational changes, such as gender-inclusive courses and awareness actions, to break down established prejudices.

Keywords: stereotype, Traditional roles, inferiority complex

1. Introduction

This review intends to present the gender differences in performance in college. Gender stereotypes are behavioural traits that have historically been assigned to individuals depending on their gender. They encompass stereotyped attitudes, judgments, and beliefs about what defines males and females (Bendas et al. 2006). Naturally, it refers to an understanding of the social functions performed by men and females (Mollaeva 2018). It is well known what stereotypes are, thus, the generalised and simplified ideas that come to everyone without any effort, like a random mental picture of another social being or anyone (Myers 2008). As a result, the concept is widely accepted and likely what most people want to see and hear. Therefore, gender stereotypes are everywhere among students of both sexes and the teachers' and students' family environments. For instance, it regularly encounters some headlines in the report about the lack of masculinity among males and the lack of humility among females. Most of them will be ridiculed and mocked; even they will be seen as an oddity.

Moreover, communication processes also manifest in the gender-based learning division and the hidden curriculum (Mollaeva 2018). College is indeed a process in which students are beginning to suspect for themselves through the world and are imaginative and creative. However, some inherent Stereotypical thinking may have a limited impact on pupils' ability to see, conduct, and view the world. Most of the time, females are the victims of stereotypes and unfairness in various ways, reflecting both values and behaviour. Stereotypes about females and males have been taught and accepted since the beginning of everyone's life. Even though many efforts strive for educational gender fairness, women begin to doubt this notion and consciously give it a new description. Even there's a transition in consciousness recently. The issue has not yet become obsolete. Gender discrimination still exists and is even ingrained in many social aspects.

Consequently, it is crucial to investigate if stereotypes impact society or educational institutions and understand how stereotypes affect students in schools. This ideology of "gender stereotypes" forces individuals to get stuck in a rut and significantly impacts the formation of ingrained thoughts. For example, males' inclined images are commonly associated with intelligence, adventure, and logic,

whereas females' are sensitive to irresolution and sympathy. This stereotype is even more prevalent in education; female students are thought to be slightly less intelligent than boys. Female students for liberal arts while male students are naturally more competent for the science department. However, the fact is that female students' achievement is commonly underestimated in STEM fields, such as physics, mathematics and chemistry, which are taken for granted by male students are better for it; by contrast, female students usually get excellent marks in these subjects, which supports the inaccuracy of gender stereotypes in the educational aspect (Beyer 1999). Therefore, this may result in stereotype threat, which is an adverse and distressing situation experienced by people of poorly stereotypical roles. It also impedes academic achievement throughout research and instruction and during testing settings (Appel & Kronberger 2012). There is an example group --- Minority communities (e.g., African Americans, immigrants) and females (in certain areas), both of whom are systemically harmed by unfavourable stereotypes because of the psychological strain they carry, regarding the Stereotype Threat Theory (Schmader, Johns & Forbes 2008). Females may be damaged by gender stereotypes, which can lead them to traumatic circumstances, such as females being underrepresented and restrictive in many occupations, according to Tabassum & Nayak (2021). It is common to see females as inferior to males in STEM-related fields in traditional educational situations. That causes college students to choose a major based on gender segregation.

Males still receive more certificates or degrees in the physical, mathematical, and computer sciences and engineering than women (US National Centre 2020), (Hill, Corbett & Rose 2010). The U.S. Bureau of Labour Statistics expresses that females make up just only 26% of computer scientists (2015). It seems like gender discrimination. Stereotype threats may hinder the college students' professional goals and have a significant effect on theirs' inspiration, incentive, field affiliation, and sense of community (Thoman et al. 2013). Besides decelerating social productivity. Numerous research solely demonstrates data imply that gender imbalance in practical social conditions. Indeed, this causes undervalued potential, even waste the talent asset. However, from a profound perspective, some inner influence is rarely mentioned. Many students have been bullied on campus because of stereotypes, which harms their physical and mental health development and creates barriers to their self-gender cognition. Therefore, concerning the influence gender stereotypes have on students. Based on the influence of stereotypes as the keyword, there are 27 articles selected through Google Scholar to be included in this article research. This paper argues that the effect is from a sort of levies.

2. The Influence Of Gender Stereotypes

Concerning the stereotypes, it is a product of historical development; thus, it indeed has an available existence. For example, stereotypes allow males and females to depend on prior knowledge to solve issues and respond to diverse environmental circumstances, with distinct social positions performing different jobs. It's like a small-scale peasant economy where males do till and females engage in weaving. This way dramatically enhances the efficiency of society. Meanwhile, gender stereotypes are dangerous because they might lead males or females to suffer from unequal treatment and humiliating situations; However, gender stereotypes have lost their modernity, relevance, and freshness as time has passed. It is particularly noticeable in stereotypes' effect when there are separations in prescribed stereotype roles. Its negative impact far outweighs its positive impact. Gender stereotypes will persist in being reinforced and even worsen if colleges and universities ignore gender variations in a student's training approach. This result will have a detrimental effect on students themselves, hinder social balance, and stifle economic growth.

Hence, gender stereotype is considered out of date for the new century. As a result, society must confront its societal significance and impact on pupils. This is the clash of tradition and the new era. Even while stereotypes are a product of historical culture, they are becoming less appropriate. Thus, it is imperative to pick the optimum ideas and discard bad things. Society should reform it, recognise its role, and emphasise its societal importance. According to literature reading, numerous aspects of stereotype impact have been studied. The following is a summary of this study on stereotypes from

two perspectives to prove the necessity of the reform. There are two aspects to explain the stereotypes' impact: the impact of gender stereotypes on girls and the stereotype effect on boys.

2.1. The Impact of Gender Stereotypes on Girls

Regarding the typical gender stereotypes, females are less capable than males in science and more capable than males in language arts (Sinclair, Hardin & Lowery 2006). As a result, female students' occupational choices are influenced significantly by this perception. When people are in the actual world, there are surrounded by a lot of hidden role reinforcement that they are unable to perceive, such as media advertising, the views of others, and the educational environment of everyone. According to our instructors or parents from the time people were in childhood, pink is for girls and blue is for boys; besides art subjects are associated with girls, science subjects are associated with boys. Teachers and parents significantly impact children's perceptions (Tiedemann 2000). Consequently, females believe they should pursue the arts, whereas males feel they should study science. Gender stereotypes in education are dangerous because female students might lead to unequal treatment and humiliated situations in educational institutions (Chisamya et al. 2012). Gender inequality is considered discrimination to some extent (Jacobs 1996). It is particularly noticeable in stereotypes' effect when there are separations in prescribed stereotype roles. Female students' educational opportunities are significantly influenced owing to a combination of psychological factors and stereotypical perceptions. At the same time, males are much more likely than females to pursue undergraduate and graduate degrees in the physical sciences, mathematics, computer science, and engineering, according to the U.S. National Centre for Education Statistics. Females are significantly underrepresented in these fields, with meagre rates of related professions (Rosenwald 2006). Plus, females are shown to have more mathematical anxiety, and their self-concept in mathematics is typically lower than that of males, according to long-term gender stereotypes (Else-Quest, Hyde & Linn 2010). The maintenance of this gender stereotype contributes to females having a negative attitude toward mathematics, which further implies that females are the causes for the underrepresentation of women in many STEM occupations since mathematical proficiency is a necessity in these fields (Watt 2006). It is noticeable that there are studies that have shown women underestimate or neglect their talents in high school science, even when they do as well as men on arithmetic problems, and even surpass men in all categories (Ehrlinger & Dunning 2003). They do not indulge in science-based majors as often as men do. Indeed, this would grossly neglect their capabilities and squander talent assets. Given the increasing rise of mathematics and engineering, gender stereotypes have far-reaching consequences for girls and society (Selimbegovic, Chatard & Mugny 2007). Consequently, female students' learning ability is limited and undervalued; hence, recruitment and earnings perpetuate traditional gender labour specialisation and prevent a region's economic progress (Jayaweera 1997). There is a significant effect on females' development, but males also suffer from these stereotyped views, which leads to another inescapable issue. Therefore, how to transfer the situation? Changing the gender stereotypes can be established in gender education, which focuses on reviving traditional cultural limitations through analysing gender peculiarities. It can be said that education is the inheritance of traditional culture and the innovation of new culture; it is an integration. It is beneficial for young people to develop their potential personal development and create conditions for maximum self-realisation. Hence, it is essential, from the perspective of educational techniques and learning settings. Therefore there should need to teach children to embrace the appropriate acknowledgement of gender to build their correct self-perception to achieve higher performance and make a positive difference in social developmental contribution. Internalised stereotypes are not viewed as strange, and the problem is common and rarely addressed, yet they influence perception and behaviour. Some ways are mentioned to overcome the deeply entrenched stereotype in the perception and interaction, like identifying gender stereotypes and counterstereotype. While these specific statistics ways contribute to that females' status has improved, there are still many unfavourable realities concerning females, which are not a matter of male wellness but hidden oppression and burden. In conventional times, without the era's strength, the all-encompassing

character of men and women is not necessarily superior. The result is the history of the leftovers, and males have risen to power among the present beneficiaries due to historical circumstances. As a result of stereotypes in education, the potential of female students is underestimated, which may have an impact not only on economic development but also on the balance of social resources.

2.2. The Impact of Gender Stereotypes on Boys

Male domination has existed throughout history and permeates every aspect of society (Hausmann, Tyson & Zahidi 2010). Numerous researches have connected the threat of stereotypes to women's performance in education. Thus, male supremacy is still generally accepted in culture (Hausmann, Tyson & Zahidi 2010). The group's performance may be impaired by stereotype threat theoretically, since a negative stereotype is aimed at the group, having the aptitude in a particular subject, which is seen for granted (Steele & Aronson 1995). Otherwise, the group of that will be condemned. According to studies, stereotype-threatening affects even those people with high gender status (Hartley & Sutton 2013). Individuals' quality of work degrades due to their knowledge that the social group to which they belong is not anticipated to perform well. Individuals feel threatened in such a circumstance by confirming a negative stereotype about their group and being perceived or treated in terms of that stereotype (Hartley & Sutton 2013). Acute exposure to stereotype threats can impair performance by producing rumination and worry. Still, persistent exposure can cause people to disengage from a performance domain to maintain their self-esteem (Steele & Aronson 1995).

In athletics, for example, white athletes consistently outperform their peers. They will be treated as if this were their innate athletic skill, and no one will dispute it. Those who are thought a little bit superior should be scolded if they fail to meet expectations (Stone et al. 1999). Accordingly, stereotypes pose a threat to males. Therefore, the stereotype itself is not directed at a specific gender but rather at all genders in many circumstances. Traditionally, according to gender stereotypes, males are seen as competent, agile and knowledgeable while being more rebellious and violent than females; moreover, they seem less obedient to authority.

Consequently, males are also subject to negative stereotypes, for instance, the perception that boys are less disciplined than girls and, therefore, less successful in lessons (Hartley & Sutton 2013). Alternatively, the thought that males are better at science and consequently less capable of reading contributes to the mental bullying of males who do not succeed in science or are adept at reading. That also influences their development of themselves and self-recognition. Research on stereotype threat exposes the detrimental impact since unfavourable preconceptions about people's group membership may hamper their potential to perform at a higher level (Steel 1997). Gender awareness begins at quite an early age for most individuals (Ambady et al. 2001). Suppose this conventional viewpoint continues to appear from the perspective of personal development. In that case, they cannot build their correct self-perception to achieve higher performance and make a positive difference in social developmental contribution.

3. Conclusion

Stereotypes about females and males, in general, lead to many social challenges. On the one hand, gender stereotypes may impede academic development in such conditions by causing low self-recognition, a sense of self-doubt or "second-class" of female students and refusal of attempts to challenge due to the belief that external states limit achievement, and loss of innovation in some aspects and waste talented assets. On the other hand, it would strengthen children's gender awareness from an early age and harm children's psychological health, thus affecting their gender cognition to a great extent. As a result, if the public does not reorient consciousness and recognise equal intellectual abilities, this will continue to thrive in a vicious loop. Consequently, it seems to be a significant issue in contemporary society. Hence, there should be more the conventional viewpoint that should be altered by a shift in pedagogical approaches that begins in the early stages of life. The reason is that education is a social necessity and may entirely modify this view from the perspective of female and

male teens. There should be more research immediately confronting the lack of knowledge of gender issues, deconstructing gender designations, abandoning society's biases, and fighting against the distortion of the gender structure. And there also should be research on the necessity of reforms for both males and females, and the school system and teaching approach must be relied upon to carry out this sort of recognising. For the sake of helping our community grow and become more productive, it significantly needs to research and focus more on gender problems.

References

- [1] Ambady, N. Shih, M. Kim, A., et al. 2001. Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance. *Psychological Science* 12: 385–390.
- [2] Appel, M. & Kronberger, N. 2012. Stereotype threat and the achievement gap: Stereotype threat before test-taking. *Educational Psychology Review* 24: 609-635.
- [3] Bendas, T. 2006. Гендерная психология: Учебное пособие [Gender psychology: Textbook]. St. Petersburg, Russia: Peter Press.
- [4] Beyer, S. 1999. The Accuracy of Academic Gender Stereotypes. *Sex Roles* 40: 787-813.
- [5] Chisamya, J., DeJaeghere, G., Kendall, et al. 2012. Gender and Education for All: Progress and problems in achieving gender equity. *International Journal of Educational Development* 32(6): 743-755.
- [6] Ehrlinger, J. & Dunning, D. 2003. How chronic self-views influence (and potentially mislead) performance estimates. *Journal of Personality and Social Psychology* 84: 5-17.
- [7] Else-Quest, N. M., Hyde, J. S., & Linn, M. C. 2010. Cross-national patterns of gender differences in mathematics: a meta-analysis. *Psychol. Bull* 136: 103–127.
- [8] Hartley, B. L. & Sutton, R. M. 2013. A Stereotype Threat Account of Boys' Academic Underachievement. *Child Development*, 84: 1716–1733.
- [9] Hausmann, R., Tyson, L. D. & Zahidi, S. 2010. The global gender gap report. World Economic Forum.
- [10] Hill, C., Corbett, C., Rose, A. St. 2010. Why so few? Women in science, technology, engineering, and mathematics (ed). Washington, DC: American Association of University Women.
- [11] Jacobs, J. A. 1996. Gender Inequality and Higher Education. *Annual Review of Sociolog* 22: 153–185.
- [12] Jayaweera, S. 1997. Women, Education and Empowerment in Asia. *Gender and Education* 9(4): 411–424.
- [13] Mollaeva, E. A. 2018. Gender Stereotypes and the Role of Women in Higher Education (Azerbaijan Case Study). *Education and Urban Society* 50: 8747-763.
- [14] Myers, D. G. 2008. *Social psychology*(ed). Boston, MA: McGraw-Hill.
- [15] Rosenwald, F. 2006. Filles et garçons dans le système éducatif depuis vingt ans. INSEE, Données sociales – Société française.
- [16] Schmader, T., Johns, M. & Forbes, C. 2008. An integrated process model of stereotype threat affects performance. *Psychological Review* 115: 336-356.
- [17] Selimbegovic, L., Chatard, A. & Mugny, G. 2007. Can we encourage girls' mobility toward science-related careers? Disconfirming stereotype belief through expert influence. *European Journal of Psychology of Education* 22: 275–290.
- [18] Sinclair, S., Hardin, C.D.& Lowery, B. S. 2006. Self-stereotyping in the context of multiple social identities. *Journal of Personality and Social Psychology*, 90: 529-542.
- [19] Steele, C. M. 1997. A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist* 52: 613–629.
- [20] Steele, C. M. & Aronson, J. 1995. Stereotype threat and the intellectual test performance of African-Americans. *Journal of Personality and Social Psychology* 69: 797–811.
- [21] Stone, J. C., Lynch, I. Sjomeling, M, et al. 1999. Stereotype threat effects on Black & White athletic performance. *Journal of Personality and Social Psychology* 77: 1213–1227.
- [22] Tabassum, N. & Nayak, B. S. 2021. Gender Stereotypes and Their Impact on Women's Career Progressions from a Managerial Perspective. *IIM Kozhikode Society & Management Review* 10: 192–208.

- [23] Thoman, D. B., Smith, J. L., Brown, E. R., et al. 2013. Beyond performance: A motivational experiences model of stereotype threat. *Educational Psychology Review* 25: 211–243.
- [24] Tiedemann, J. 2000. Parents' gender stereotypes and teachers' beliefs as predictors of children's concept of their mathematical ability in elementary school. *Journal of Educational Psychology* 92: 144-151.
- [25] U.S. Bureau of Labour Statistics. Labour force statistics from the Current Population Survey. 2015.
- [26] U.S. National Center for Education Statistics. Digest of education statistics, 2010.
- [27] Watt, H. M. G. 2006. The role of motivation in gendered educational and occupational trajectories related to maths. *Educ. Res. Eval* 12: 305–322.