

The Formation and Impact of Gender Stereotypes: Analyzing Family, School, and Media Environments

Jinyi Zhou^{1,a,*}

¹*Institute of Education, University College London, London, WC1E 6BT, Britain*

a. dtnvj71@ucl.ac.uk

**corresponding author*

Abstract: This study focuses on the formation of gender stereotypes and their manifestations and impacts within three environments: family, school, and social media. Through a literature review, the research explores how gender stereotypes are reinforced by parental behavior, teacher attitudes in schools, gender roles in textbooks, and gendered portrayals in media. The findings indicate that gender stereotypes are significantly shaped by factors such as family role divisions and differing educational expectations for genders, biases in teacher attitudes and curriculum design in schools, and explicit and implicit gendered messages in media. These stereotypes can limit individual career choices and interest development, and reduce self-esteem and confidence, but in some cases, they may also enhance a sense of belonging and well-being. The study further suggests that promoting gender-equal education, enhancing media diversity, and implementing gender-neutral policies could help mitigate the negative impacts of gender stereotypes and provide a reference for creating a fairer social environment.

Keywords: sex stereotypes, gender difference, family life education, gender bias, sex fairness.

1. Introduction

Gender stereotypes are commonly held fixed beliefs and expectations about specific characteristics and behaviours of males and females. Gender stereotypes include the attribution of certain attributes, traits, and roles to gender, which are usually based on the sex assigned at birth and reflect traditional societal expectations of gender [1]. Such preconceptions of gender roles often exist from the time children are born and influence their self-perceptions and behaviours [1]. In life, common stereotypes of females are: like dolls, like pink, not good at math, gentle and submissive. The stereotypes for men are: like cars, like the colour blue, stem course, brave and ambitious. Not only that, studies have proved that stereotypes can limit students' educational and career goals, academic abilities, and emotional expression [2, 3]. Therefore, there is a need to study the creation of gender stereotypes and from that perhaps ways to curb them can be found. The main research question of this thesis is how does the demand for gender differences between men and women in different environments and education contribute to the creation of gender stereotypes? The study uses literature analysis to examine the creation of stereotypes and the positive and negative effects of stereotypes in three settings: family, school and media.

2. The Emergence of Gender Stereotypes in Different Environments

2.1. Family

The gender beliefs and behavioural patterns of families, such as parents, play a crucial role in shaping children's attitudes towards gender roles and have a lasting impact [4]. For example, research has shown that gender stereotypes are more prevalent among children raised in households with traditional gender roles. [5]. In Social Learning Theory (SLT), it is mentioned that children learn gender cues by observing and imitating role models in direct environments such as parents and teachers, or schools or childcare environments [6]. Most of the gender cues observed in early childhood mostly come from parents [7]. Children will use the gender cues they receive to develop their understanding of gender [6]. Therefore, Halpern and Perry Jenkins found that parents' gender ideology, gendered behaviour, and division of household chores can have a long-term impact on children's attitudes towards gender roles [4]. Moreover, despite the changing gender landscape and the promotion of gender equality, it is still easier to see women as caregivers of the family and men as hardworking breadwinners [8]. Nosek et al. explained this phenomenon by stating that implicit stereotypes are not based on people's explicit attitudes, but rather on what they see in their immediate environment and society [9]. Jhuremalani et al. also indicates that children are more sensitive to the nonverbal or unconscious behaviour of adults [6]. Therefore, children can identify gender differences and imitate them from the implicit attitudes and unconscious behaviours of their parents and caregivers, leading to gender stereotypes in the new generation [6].

In the family, parents' different requirements for their children and the differences in raising children of different genders also lead to the formation of gender stereotypes in children. For example, parents will purchase different toys for girls and boys: girls' toys are dolls, furniture models, and kitchen hygiene products, while boys will receive manipulation materials suitable for shaping and creating new products (LEGO blocks, puzzles, tools), which help develop fine motor skills, spatial and logical intelligence [10]. Not only that, parents' implicit intelligence theory (i.e. mentality) also has a tangible impact on children's mentality, attitude, and grades [11]. For example, a study suggests that parents consciously report that they believe their sons are more interested in science than their daughters, and therefore engage in more complex conversations with their sons about science topics than with their daughters [12]. The study of Milic and Simeunovic also showed that parents gave boys higher scores in logical mathematics, body kinesthetic perception, and naturalism [10]. Therefore, parents with gender stereotypes will demonstrate gender-specific behaviours based on their children's gender, recommend different activities, and express different expectations for their children. There is a positive correlation between parents' gender stereotypes and children's gender stereotypes [13].

2.2. School

Another important background for the development of attitudes towards gender stereotypes in schools. Although gender stereotypes are learned from early childhood, they are often reinforced by school expectations [1]. Stereotypes in educational environments mainly manifest in the use of gender-biased visuals, language, teaching methods, and teacher attitudes [14]. Teachers may have conscious and unconscious biases and stereotypes, affecting their reflection, action, and decision-making styles [15]. They convey these stereotypes and biases through their attitudes and interactions in the classroom. In multiple studies evaluating students' abilities, teachers often overestimate boys' mathematical abilities, believing that their mathematical abilities are higher than girls'. However, this phenomenon has not been observed in objective assessments such as performance tests [1,10]. Jhuremalani argues that this reinforcement conveys to children teachers' different expectations of girls and boys, fuelling gender

stereotypes [6]. Smyth stated that teacher-student interaction is the foundation for constructing gender differences within the education system [16]. Teachers have gender expectations for children's behaviour, and based on these expectations, they may reinforce behaviours that conform to gender norms and punish or attempt to suppress behaviours that do not conform to gender norms, which may further reinforce gender stereotypes [1]. For example, evidence suggests that boys may receive more attention during classroom interactions and interruptions, while girls are typically punished for interrupting [1]. In such cases, girls tend to suppress themselves and become more in line with the stereotypical image of traditional quiet women. Evidence suggests that teachers' conscious and unconscious gender stereotypes can affect the way they rate girls and boys [1].

Schools are one of the most important environments for children and youth to socialize and establish identities, but in many countries, educational curricula, teaching materials, and classroom learning still reinforce traditional gender stereotypes [1]. For example, in school, girls are encouraged to develop "soft" skills such as painting, singing, and writing, emphasizing their "gentle side" [10]. Boys are more valued and encouraged by physical education teachers to participate in sports activities. Therefore, young boys may develop gender stereotypes, believing that they have stronger athletic abilities than girls [6]. Moreover, research has shown that children primarily develop self-awareness and gender identity through behaviours that are learned and reinforced in school [17].

However, the content of textbooks also suffers from a lack of diversity and stereotypes [1,10,18]. Primary course materials tend to present roles in a stereotypical way to reinforce gender norms [18]. However, reinforcing traditional gender concepts can lead to a lack of resources for teachers to challenge gender stereotypes and create more inclusive and affirmative classroom communities [18]. Kostas examined past reviews of textbooks in terms of gender representation and conducted a qualitative research project in two primary schools in Athens, Greece, involving 40 boys and 40 girls. The survey found that the image and text space of women is much smaller than that of men; Men and women are often depicted as stereotypical roles and professions, with men in a dominant position. Women are often associated with household and caregiving work, while men are depicted as roles related to power and authority. When women are portrayed in professional roles, they are often stereotyped as teachers, actresses, and nurses, and there is a lack of examples of female scientists and other intellectual roles [19]. The gender stereotypes in textbooks lead to students having obvious biases towards professions. They may feel that different professions are suitable for different genders, and women lack gender identity towards professions that are not represented by stereotypes. When considering future careers, girls may overlook these professions [6].

2.3. Media

Media platforms, technological systems, and search engines, as channels and gatekeepers of information, play a crucial role in the formation, dissemination, and reinforcement of gender stereotypes. They not only reflect existing gender perceptions in society but also potentially amplify gender biases through algorithms and content recommendations [20]. People use the Internet or media platforms to receive a large amount of information, at the same time, if this information is full of gender stereotypes, people will be imperceptibly affected.

Firstly, many television programs spread stereotypes about gender [6]. Jhuremalani suggested that because most sports television time is dedicated to men's sports, athletes are implicitly and explicitly perceived as being male-dominated [6]. Wille et al. found in their study evaluating the impact of a series of television programs on young children that students exposed to gender stereotypes in television programs showed increasing support for gender stereotypes [21]. Research has shown that media can promote stereotypes in young children; this is related to SLT, where virtual environments help children learn how each gender should behave in an ideal world [21].

Newspapers and advertisements, like textbooks, convey gender stereotypes through articles and images. An analysis of technology product advertisements in professional journals such as business, computing, science/engineering, libraries, and information science, which are stereotyped as male-dominated, found that men appear more frequently than women [22]. In addition, men's roles in technology are often portrayed as profound thinkers with connections to the future, while women often convey the concept of product simplicity, which is largely stereotyped [22-24].

Moreover, the gender stereotypes of Internet search engines are obvious [20]. Datta et al. found that Google will display significantly fewer ads for high-paying jobs than male users when the user's gender is set to female [25]. Singh et al. indicated that the reason for this phenomenon may be that people have introduced pre-existing gender power relations, stereotypes, and inequalities into the technological system [24]. As shown in the report of Noble, Google as a social technology system, continues the concept of people and ideas in a way that strongly reflects stereotypes of racism and gender discrimination [20].

3. The Impact of Gender Stereotypes

3.1. Negative Impact

Stereotypes can impose limitations on individuals on multiple levels, and even lead to negative consequences for those who violate stereotypes. Firstly, gender stereotypes can limit individuals' educational and career choices, hindering their personal development [10]. Nylund et al. found that in some Nordic countries such as Finland, Iceland, and Sweden, gender and class factors collectively have a negative impact on students' academic and career achievements [26]. Liben et al., Rainey and Rust also stated that children who strictly adhere to gender stereotypes will be limited in their childhood and future education and career aspirations, perceived academic abilities, emotional expression, and social development [2,3]. For example, in the academic field, women's academic performance, self-evaluation, and sense of ability are all influenced by stereotypes, which hinder their development [27]. For example, women have long been considered inferior to men in science subjects such as mathematics and science. This negative stereotype leads to women performing poorly in fields such as mathematics and science. This phenomenon is known as stereotype threat [28]. The stereotype threat theory suggests that when people have prominent negative stereotypes about their group, their performance is affected [28]. Fogliati and Bussey stated that stereotype threat causes individuals to feel pressure during performance, which has a suppressive effect on women's self-efficacy and motivation to improve skills [29]. In the experiment, Hermann and Vollmeyer was also observed that girls experienced significantly greater pressure and tension when calculating than boys [30]. However, a high fear of failure can lead to students being less ambitious, which can affect their educational and career choices [10]. Jhuremalani et al. also indicate that these biases reduce girls' interest in pursuing careers that represent intelligence [6]. People are heavily influenced by gender when choosing careers, often based on perceived gender characteristics and qualities [24]. Therefore, women are underrepresented in the fields of mathematics, science, and engineering [10]. However, these professions, such as computer programmers and civil engineers, often have higher salaries or are more respected, while professions related to traditional female roles, such as teacher care, offer lower wages, which further exacerbates gender inequality [1,24]. Finally, behaviours that violate stereotypes may lead to negative consequences, such as leading to greater social pressure and interpersonal relationship problems [31]. Rudman and Glick proposed that women who exhibit more agency power or do not conform to the characteristics of "feminization" often face discrimination and negative evaluations [32]. In summary, gender stereotypes significantly limit individuals' choices and potential, and those who violate gender stereotypes may also face social pressure and bias, further exacerbating gender inequality.

3.2. Positive Impact

Research has shown that positive gender stereotypes can enhance an individual's self-esteem in certain situations [33]. According to social identity theory, people tend to maintain a positive social identity, therefore, these positive stereotypes can be combined with an individual's self-concept to promote positive individual self-esteem and self-efficacy (PSE) [34,35]. In addition, gender stereotypes may affect children's interest and skill development in the early stages, leading to sustained positive effects on their skill acquisition and career aspirations [10]. In some stereotype threat experiments, men perform better due to gender stereotypes, especially in math and spatial abilities, a phenomenon known as "stereotype lift" [30,36]. Behaviours that conform to gender stereotypes can also enhance an individual's sense of belonging and life satisfaction. The studies by Giamo et al. indicate a positive correlation between self-stereotypes and happiness [35,37]. Overall, behaviours that conform to gender stereotypes may have a positive impact on men's social harmony and self-esteem and also have a certain promoting effect on women's life satisfaction [35].

4. Conclusion

This study examines the production of gender stereotypes and their positive and negative effects on the family, school and social media. The study shows that the division of gender roles and parental expectations in the family, teachers' attitudes and curricula in school education, and gendered portrayals in the media reinforce gender stereotypes to varying degrees, causing gender concepts to be reinforced in children's early socialization process. These stereotypes may limit an individual's career choices and interests, diminish self-esteem and self-confidence, and lead to social prejudice and discrimination. However, positive gender stereotypes can also promote self-efficacy and well-being in some cases.

Future research can further explore how to effectively minimize the impact of negative stereotypes, for example, by promoting a gender-equal perspective in family education, implementing gender-neutral curricula in schools, and advocating diverse gender role representations in the media. In addition, policymakers and educators should also pay more attention to the impact of gender stereotypes and develop more inclusive and pluralistic educational policies and social norms to create an enabling environment for gender equality.

References

- [1] Brussino, O., & J. McBrien (2022). *Gender stereotypes in education: Policies and practices to address gender stereotyping across OECD education systems*. OECD Education Working Papers, No. 271, OECD Publishing, Paris. <https://doi.org/10.1787/a46ae056-en>
- [2] Liben, L. S., Bigler, R. S., & Krogh, H. R. (2002). *Language at work: Children's gendered interpretations of occupational titles*. *Child Development*, 73, 810-823. Doi: 10.1111/1467-8624.00440
- [3] Rainey, A. B., & Rust, J. O. (1999). *Reducing gender stereotyping in kindergartners*. *Early Child Development and Care*, 150, 33-42. Doi: 10.1080/0300443991500103
- [4] Halpern, H.P., & Perry-Jenkins, M. (2016). *Parents' Gender Ideology and Gendered Behavior as Predictors of Children's Gender-Role Attitudes: A Longitudinal Exploration*. *Sex Roles*, 74, 527-542. <https://doi-org.libproxy.ucl.ac.uk/10.1007/s11199-015-0539-0>
- [5] Endendijk, J. J., Groeneveld, M. G., van der Pol, L. D., van Berkel, S. R., Hallers - Haalboom, E. T., Bakermans - Kranenburg, M. J., & Mesman, J. (2017). *Gender differences in child aggression: Relations with gender - differentiated parenting and parents' gender - role stereotypes*. *Child development*, 88(1), 299-316.
- [6] Jhuremalani, A., Tadros, E. & Goody, A. (2023). *Stereo-atypical: An Investigation into the Explicit and Implicit Gender Stereotypes in Primary School-Aged Children*. *Early Childhood Education Journal*, 51(7), 1115-1129. <https://doi-org.libproxy.ucl.ac.uk/10.1007/s10643-022-01355-w>
- [7] Epstein, M., & Ward, L. M. (2011). *Exploring parent-adolescent communication about gender: Results from adolescent and emerging adult samples*. *Sex Roles*, 65, 108-118.

- [8] Dovidio, J. F., Kawakami, K., & Beach, K. R. (2001). *Implicit and explicit attitudes: Examination of the relationship between measures of intergroup bias*. In *Blackwell handbook of social psychology: Intergroup processes*, 4, 175-197. Oxford, England: Blackwell.
- [9] Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). *Harvesting implicit group attitudes and beliefs from a demonstration website*. *Group Dynamics: Theory, Research, and Practice*, 6(1), 101.
- [10] Milic, S., & Simeunovic, V. (2024). *Do gender stereotypes play a role in the process of identifying gifted students in Western Balkan countries? - Case study Bosnia and Herzegovina*. *European Journal of Education*, 59, e12594. <https://doi.org/10.1111/ejed.12594>
- [11] Gunderson, E. A., Ramirez, G., Levine, S. C., & Beilock, S. L. (2012). *The role of parents and teachers in the development of gender-related math attitudes*. *Sex Roles*, 66(3-4), 153-166. <https://doi.org/10.1007/s11199-011-9996-2>
- [12] Tenenbaum, H. R., & Leaper, C. (2002). *Are parents' gender schemas related to their children's gender-related cognitions? A meta-analysis*. *Developmental Psychology*, 38(4), 615-630. <https://doi.org/10.1037/0012-1649.38.4.615>
- [13] Lee, H. J., Lee, J., Song, J., Kim, S., and Bong, M. (2022). *Promoting children's math motivation by changing parents' gender stereotypes and expectations for math*. *Journal of Educational Psychology*, 114(7), 1567.
- [14] Kerkhoven, A. H., Russo, P., Land-Zandstra, A. M., Saxena, A., and Rodenburg, F. J. (2016). *Gender stereotypes in science education resources: A visual content analysis*. *PLoS One*, 11(11), e0165037. <https://doi.org/10.1371/journal.pone.0165037>
- [15] Davis, K., and V. Nicaise (2011). *Teacher-student interactions: Four case studies of gender in physical education*. *Journal of Classroom Interaction*, 46(2), 11-23.
- [16] Smyth, E. (2007). *Gender and education*. *International studies in educational inequality, theory and policy*, 135-153,
- [17] Dunham, Y., Baron, A., & Banaji, M. (2016). *The development of implicit gender attitudes*. *Developmental Science*, 19(5), 781-789. <https://doi.org/10.1111/desc.12321>
- [18] Whitford, A. (2024). *"I Had a Deep - Down Stereotype": Pairing Critical Literacy Practices to Examine Explicit and Implicit Gender Stereotypes with Elementary Students*. *The Reading Teacher*, 77(5), 736-744.
- [19] Kostas, M. (2021). *Discursive construction of hegemonic masculinity and emphasised femininity in the textbooks of primary education: children's discursive agency and polysemy of the narratives*. *Gender and Education*, 33(1), 50-67.
- [20] Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. In *Algorithms of oppression*. New York university press.
- [21] Wille, E., Gaspard, H., Trautwein, U., Oschatz, K., Scheiter, K., & Nagengast, B. (2018). *Gender stereotypes in a children's television program: Effects on girls' and boys' stereotype endorsement, math performance, motivational dispositions, and attitudes*. *Frontiers in Psychology*, 9, 1-17. <https://doi.org/10.3389/fpsyg.2018.02435>
- [22] Dilevko, J., & Harris, R. M. (1997). *Information technology and social relations: Portrayals of gender roles in high tech product advertisements*. *Journal of the American Society for Information Science*, 48, 718-727.
- [23] Döring, N., & Pöschl, S. (2006). *Images of men and women in mobile phones advertisements: A content analysis of advertisements for mobile communication systems in selected popular magazines*. *Sex Roles*, 55, 173-185.
- [24] Singh, V. K., Chayko, M., Inamdar, R., & Floegel, D. (2020). *Female librarians and male computer programmers? Gender bias in occupational images on digital media platforms*. *Journal of the Association for Information Science and Technology*, 71(11), 1281-1294.
- [25] Datta, A., Tschantz, M. C., & Datta, A. (2015). *Automated experiments on ad privacy settings: A tale of opacity, choice, and discrimination*. *Proceedings on Privacy Enhancing Technologies*, 2015(1), 92-112. <https://doi.org/10.1515/popets-2015-0007>
- [26] Nylund, M., Rosvall, P. A., Eiríksdóttir, E., Holm, A. S., Isopahkala-Bouret, U., Niemi, A. M., & Ragnarsdóttir, G. (2018). *The academic-vocational divide in three Nordic countries: Implications for social class and gender*. *Education Inquiry*, 9(1), 97-121.
- [27] Ertl, B., Luttenberger, S., & Paechter, M. (2017). *The impact of gender stereotypes on the self-concept of female students in STEM subjects with an under-representation of females*. *Frontiers in psychology*, 8, 703.
- [28] Steele, C. M., & Aronson, J. (1995). *Stereotype threat and the intellectual test performance of African Americans*. *Journal of Personality and Social Psychology*, 69(5), 797-811. <https://doi.org/10.1037/0022-3514.69.5.797>
- [29] Fogliati, V. J., & Bussey, K. (2013). *Stereotype threat reduces motivation to improve: Effects of stereotype threat and feedback on women's intentions to improve mathematical ability*. *Psychology of Women Quarterly*, 37(3), 310-324. <https://doi.org/10.1177/0361684313480045>
- [30] Hermann, J.M., Vollmeyer, R. (2022). *Gender stereotypes: implicit threat to performance or boost for motivational aspects in primary school?*. *Social psychology of education*, 25(2), 349–369. <https://doi-org.libproxy.ucl.ac.uk/10.1007/s11218-022-09693-8>

- [31] Rudman, L. A., and Glick, P. (1999). *Feminized management and backlash toward agentic women: the hidden costs to women of a kinder, gentler image of middle managers*. *J. Pers. Soc. Psychol.* 77, 1004-1010.
- [32] Rudman, L. A., and Glick, P. (2001). *Prescriptive gender stereotypes and backlash toward agentic women*. *J. Soc. Issues.* 57, 743-762.
- [33] Oswald, D. L., & Lindstedt, K. (2006). *The content and function of gender self-stereotypes: An exploratory investigation*. *Sex Roles*, 54, 447-458. <https://doi.org/10.1007/s11199-006-9026-y>
- [34] Tajfel, H. (1982). *Social psychology of intergroup relations*. *Annu. Rev. Psychol.* 33,1-39. doi: 10.1146/annurev.ps.33.020182.000245
- [35] Li, J., Liu, Y., & Song, J. (2022). *The relationship between gender self-stereotyping and life satisfaction: the mediation role of relational self-esteem and personal self-esteem*. *Frontiers in Psychology*, 12, 769459.
- [36] Walton, G. M., & Cohen, G. L. (2003). *Stereotype lift*. *Journal of Experimental Social Psychology*, 39(5), 456-467. [https://doi.org/10.1016/S0022-1031\(03\)00019-2](https://doi.org/10.1016/S0022-1031(03)00019-2)
- [37] Giamo, L. S., Schmitt, M. T., and Outten, H. R. (2012). *Perceived discrimination, group identification, and life satisfaction among multiracial people: a test of the rejection-identification model*. *Cultur. Divers. Ethnic Minor. Psychol.* 18, 319-328.