

Gender Differences in Academic Performance

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Introduction

Over at least the past fifty years, gender roles have changed considerably. There are many more women in the workforce, sports, and educational institutions now compared to thirty years ago. Women's representation in the workforce has increased by 9% since the mid-1980's, and the percentage of female high school athletes has increased by 33% since 1971. 17% more women have graduated with a bachelor's degree since the early 1980's, and enrollment in medical and law schools has also increased. However, women's salaries are less than men's in almost every profession, there is less coverage of women's sports, and minimal representation in politics (Haines et al., 2016). Furthermore, men getting more involved in "female" roles has only increased by a minimal amount. For example, the number of registered nurses that are men has only increased by 5% between the mid 1980's and the mid 2010's and it has only increased by 0.5% from 2000 to 2010. The number of hours spent doing housework has consistently remained around less than 10 hours for men, whereas women spend an average of almost double that time.

Although there are many issues that could be discussed on the topic of gender differences, this paper will look at academic performance. Academic performance is characterized as achievement on exams, average test scores and GPA, skill sets, and methods of learning. Gender difference is characterized by the disparity between male and female performance and answers on surveys. Being informed of these distinctions can help identify what needs to be done in educational environments in order to improve scholastic achievement among all genders, especially in single-sex schools. If one takes into account the areas where they differ, it may influence decisions regarding school environment to maximize performance and educational equality. I am looking at academic performance in order to pinpoint the specific areas society needs to focus on. It is easier to make change when you know precisely what it is that needs to be changed. My research will help recognize what needs to be adjusted.

There has been a fair amount of research on gender difference. Gender difference research does have a larger presence in some fields than others, with psychology and medicine being some of the biggest. Furthermore, there has also been a fair amount of research done on academic performance. This includes study habits, sleep patterns, nutrition, teaching methods, school environment, and how the interaction between these factors influence academic achievement. Therefore, the interdisciplinary research on gender differences in academic performance has also gotten a reasonable amount of attention. Although this field has come to some conclusions based on the differences between men and women, we are still looking for ways to address the disparities in different educational contexts.

Stereotypes among genders may minimize children's belief in themselves in some fields. This makes it harder for those children to develop interest in that area, leading to self-doubt and decreased motivation (Kollmayer et al., 2018). Finsterwald and Ziegler (2007) examined the pictures in 28 textbooks that were used in school to detect bias. This examination revealed that female characters were less often shown than male characters doing an athletic activity. Furthermore, female characters were depicted doing more household chores whereas male characters were often shown in a workplace. Men were also shown to be more adventurous, independent, and competitive. On the other hand, women were painted as more submissive which may limit their potential in life as it influences their decision making and passion into being more submissive as well (Finsterwald & Ziegler, 2007). As a result, they develop a lack of self-esteem and shy away from professions that are stereotyped to be more "male" professions, limiting their career goals (Tindall & Hamil, 2004).

In this paper, I argue that the difference in academic performance between genders is largely due to multiple social factors, including parenting techniques, society, and culture. First, I look at the basic gender differences in academia such as test grades, skills, and GPA, how they are relevant to this topic, and to what degree. I also touch on parental influence and how differing parenting styles factor into internalized gender roles. We look at studies that explain a little bit about how parents treat their children, and then the different values that are instilled in children through parents. After that, I discuss socialization in relation to teachers influencing gender roles. Stereotype threat is also brought up, regarding test scores and stereotypes within the STEM fields. Lastly, I review gender differences in the context of different cultures and cross-cultural influences, how career choice is affected, the work habits of men and women, and what social role theory is.

Academic Differences

In this section, I will be clarifying what academic differences are, such as skills, test grades, GPA, and performance in school. Furthermore, I will talk about how men and women differ in such areas. Understanding all of this beforehand provides relevant context to what I will discuss later on, allowing it to make more sense.

Men are sometimes thought to perform better in certain academic areas and women are thought to perform better in others. Spatial skills, which is the ability to understand the relationships of objects in one's surroundings, has a subcategory of three-dimensional mental rotation. This is an academic area that has one of the most noticeable gender differences (Hyde, 2016) which men are typically known to be better at (Halari et al., 2006). On the other hand, verbal fluency favored females when tested on performance (Halari et al., 2006). However, other tasks such as vocabulary (Hyde, 2016) and general intelligence (Spinath et al., 2014) show scarcely any contrast.

Not only should we look at skills among genders, but also their performance in school such as grades, GPA, and tests. There was a study conducted at the University of New Haven which looked at male and female performance in an engineering course where they tested 52 boys and 49 girls. The results at the end of the semester showed that males had an average GPA of 2.85 and females had an average GPA of 3.05, indicating that women overall did better than men. Looking at their average grades in engineering specifically, there was only a 0.03 difference. All the students took two exams throughout the course. Males' mean score between the two exams was 80.75 and females had a mean score of 81.7 (Orabi, 2007).

Overall, women did better than men in school, but only slightly. There is not too big of a difference between their immediate test scores. However, their GPAs, which take into account multiple grades over a long period of time, have a more dramatic difference. Therefore, this may suggest some kind of difference between men and women and their long-term habits and sense of responsibility since GPA takes place over time. Looking at their scores in school, women usually perform better but it is barely noticeable. This study did not mention where the participants came from, their economic background, or level of education. These are all things to consider when interpreting results so we must take into account that that information is missing.

Looking at academic areas such as spatial skills and verbal fluency, along with school performance like GPA and test scores, the differences and similarities between men and women are made clear. Now, I can talk about the factors that influence this difference like social, cultural, and parental effects. Personality and how it is shaped plays a major role in how well you do throughout your education and career.

Personality

When it comes to identifying specifically what influences academic differences among males and females, it is difficult to separate factors from one another. However, for now, instead of talking about educational differences, such as how students do in school, I will now talk about the multiple factors that go into how students approach school.

Schober and Finsterwald (2016) conducted a study that looked at 244 students and their success in mathematics. They found that a girl who does not understand the material right away but puts in a lot of effort into school does better than a girl who innately understands the material right away but does not put a lot of effort into school. Conversely, boys exhibit the opposite tendencies. This leads to girls being praised for their effort more often and boys being praised for talent more often. It was also found that in a public Turkish University, fewer women were admitted into the school. However, once in, they often exceeded their male counterparts (Dayioğlu & Türlüt-Aşık, 2007). This is significant because it means that there are many qualified women, but they end up a part of the many unemployed women in Turkey who are less likely to

get a job since men are more likely to work as wage earners (Tansel, 1994). Therefore, these results may educate employers about qualification and aid employment issues against women.

Academic performance is often difficult to study as it is nuanced. Many factors bleed into one another, making it challenging to distinguish between them. For example, personality and environmental factors interact, making studies complex and therefore there are no generalizations that can be definitively proven (Biggs, 1978). However, understanding what causes these differences between genders through such nuanced subjects can help us address inequalities in education. By knowing the causes, society can create more equal opportunities for both genders so they can reach their full academic potential (Wrigley-Asante et al., 2023).

There are multiple personality factors that go into how well students perform in school and by classifying them we can provide a possible explanation as to why one gender does better in one area than the other. Ghazvini and Khajepour (2011) separate these explanations into three categories: locus of control, self-concept, and learning strategies. Internal locus of control refers to the belief that things happen because of your own actions. External locus of control refers to the belief that things happen because of fate or luck, therefore usually taking less responsibility. Academic self-concept refers to the confidence one has in respect to their academics (Reyes, 1984) which is demonstrated in a study by Ghazvini and Khajepour (2011).

Ghazvini and Khajepour (2011) conducted a study with 363 students between 15 and 18 years old with 176 being male and 187 being female. The students filled out a questionnaire that tested their self-concept. To determine internal and external locus of control, the researchers used the locus of control scale (LCS). Lastly, they used the Learning and Study Strategies Inventory (LASSI) to look at learning strategies. According to the LCS, women had more internal locus of control whereas there was little difference in external locus of control between males and females. Both genders got similar scores on the self-concept questionnaire. As for learning strategies, women take more accountability and have better attitudes, time management, and motivation, whereas men utilize concentration, information processing, and selecting main ideas more. The LASSI reflects female's superiority to males in literature and boys scoring better marks in mathematics. Ghazvini and Khajepour (2011) measured academic self-concept through a questionnaire where the results showed very similar levels (Ghazvini & Khajepour, 2011).

The factors that influence how men and women approach academic tasks indicate some of the gender differences. Society, culture, and parents affect learning techniques, self-concept, and locus of control as well. Furthermore, their reasons for motivation may depend on what correlates with praise. In the end, people's attitudes towards school, academics, and most things in life are heavily dependent on social factors.

Parenting styles

Parents also contribute to children's behaviors both in and out of school. In this next section, I will talk about different parenting styles and how they affect academic performance among the boys and girls.

The way people adopt gender roles is through their home and then later in life, those roles are reinforced through peers, school, and media. However, the most influential factor leading to beliefs about gender is family life (Witt, 1997). Parents' goals are projected onto their children, and they strongly influence decision-making (Hegna & Smette, 2017).

Society has certain stereotypes and generalizations that internally affect the way we treat people whether we want to or not. For example, parents have different techniques that they use when bringing up their children which affects the way the children act and what they tend to favor later in life. To illustrate, assertiveness is typically associated with men, and warmth and caretaking are typically associated with women. Men are stereotyped to make riskier decisions whereas women are perceived as more careful. These ideas can easily influence the decisions people make.

Because we are told these things our whole lives, we believe them to be true and feel a subconscious sense of responsibility to live up to and fulfill those expectations (Spencer et al., 2016). For instance, because women are seen as more caring, they may believe that and be more likely to choose nursing as a career. This happens for men as well. They may believe they are risk-takers, so they decide to become a police officer (Ellemers, 2018). The same goes for academic achievements and performance. Parents take in these socializations and apply them to how they treat their children. It may not be on purpose but it happens, nevertheless.

Studies by Gryczkowski, Jordan, and Mercer (2009) show that mothers supervising their children and being more involved is related to better behavior from the child and vice versa. Externalizing behaviors is expressing emotions outwardly and directing actions at others or the environment. Internalizing behaviors is when one copes with negative emotions by directing them inward instead of expressing them outwardly. In relation to the sex of the children, fathers being present or not present affected sons' externalized behavior more than daughters. On the other hand, internalized behaviors affected both sons and daughters. When the father is more involved that means less externalized behavior on the son's part, and therefore, when the father is not involved, that results in more externalized behavior (Gryczkowski et al., 2010). However, this finding is inconsistent with past research which may be due to the age of the children at which these studies were conducted. Gryczkowski et al. 's (2010) study that said poor parenting from both mother and father only affected girls was conducted on a younger age group than those that said it affected both boys and girls. Therefore, in future research, age should be taken into account. The results involving mother and son were inconsistent across research. However,

overall, positive mother parenting was a primary factor in a son's development. In just poor mother parenting, it affected both son and daughter (Gryczkowski et al., 2010).

Gryczkowski, Jordan, and Mercer (2009) interpreted this by concluding that boys would benefit from more father involvement and would be at greater risk for behavioral problems than girls if this was not the case. Furthermore, they found that maternal involvement had less of an impact on externalized behavior than paternal involvement. A possible explanation for this is that mothers have more of an effect on clinical behaviors. They address the importance of studies between parenting and their children's behavior, especially fathers.

Parents have a big role in determining how children behave and the way they think or approach things. This can impact not only their academic performance, but also their overall lifestyle. Furthermore, the amount of presence of the parents in their child's life is not the only aspect of parenting. In the next section, I will discuss what mother and father value, and how they project those values onto their kids contributes to how people do in their scholarly career as well.

Difference in Values in Parents

Values also need to be considered when determining how parenting affects children's academic performance. Different cultures have different values, and these values normalize certain parenting styles and discourage others. It also affects the way children perceive how their parents act.

Leung, Lau, and Lam (1998) researched the relationship between parenting styles and academic achievement in children among three regions: Hong Kong, the United States, and Australia. They categorized parenting styles as authoritative, authoritarian, or permissive. Also note the distinction between general and academic parenting styles. Academic parenting styles are ones that focus specifically on school and academics, whereas general parenting does not and it focuses on the bigger picture, such as social life, morals, and etiquette. Authoritative parenting is balanced between responsive and demanding. The parents are supportive but have clear rules that their children must follow. Authoritarian parenting is more controlling. They have a strict set of rules and high expectations and are typically less flexible than authoritative parents. Lastly, permissive parenting has the least amount of control. The parents tend to be more lenient, and they avoid strict rules. They concluded that Australian parents participated the least in academic authoritarianism, Chinese parents were the highest in general authoritarianism and lowest in authoritativeness. In Hong Kong, the United States, and Australia, academic authoritarianism did not improve academic achievement, and academic achievement had no response to academic authoritativeness.

In contrast to academic authoritarianism, general authoritarianism was positively related to academic achievement among those who lived in the English-speaking regions and had no

college education. Therefore, putting emphasis on academic excellence and prioritizing it above behaviors, which is academic style parenting, is not proven to be better than enforcing obedience across a broader range of behaviors, which is general style parenting. In fact, it is proven to be less effective. This could be due to a wide variety of explanations. One might include the fact that since academic authoritarianism is confined to educational and intellectual spaces, it might stifle inquiry and progress. Permissive parenting was found to be the least effective of all parenting types across most cultures. The United States also resulted in a high relationship between academic achievement and lower parental authoritarianism and higher parental authoritativeness (Leung et al., 1998). Academic achievement is largely influenced by parenting styles, and the same style can have either negative or positive effects, depending on where the child grows up.

People among lower economic classes, eastern cultures, and racial minorities tend to have a more authoritarian parenting style. This may be due to the fact that they live in more poor and dangerous communities, inflicting protective instincts on their children (Smetana, 2017). “Tiger Moms” is a phrase typically used to describe Chinese mothers who are especially fierce with their disciplinary actions in order to obtain academic achievement. However, empirical research shows that Tiger Moms do not always obtain academic achievement (Fu & Markus, 2014). Arab parents tended to also show authoritarian parenting styles, which studies found to be an effective style that is beneficial for adolescent development. However, there is a lot of variability between the different parenting styles in the Middle East. For Arab refugees in Jordan, parents typically showed authoritative parenting. This was associated with better adjustment, therefore indicating that authoritative, as well as authoritarian, parenting can be beneficial for children’s development (Smetana, 2017).

The more prominent types of parenting depending on the region can give insight into reasons behind academic performance in that region. It explains the causes of why accomplishment differs across the globe and that the level of gender difference may rely on that. Furthermore, the three distinct styles, authoritative, authoritarian, and permissive parenting, connect to the idea that parenting does have an impact on academic performance. These values, along with personality and parenting, are all influenced by social factors.

Socialization

Not only does parenting affect what people believe in and their values, but the rest of the world does as well. Online figures, friends, peers, and other adult figures in one’s life make an impression on gender roles.

Growing up with stereotypes depicted as facts, we often sculpt our lives according to these stereotypes and let them influence our decisions. Families, teachers and media all model

gender roles (Huang et al., 2023). In their research, Rosenthal and Jacobson (1968) told elementary school teachers that certain students scored well on a test that determined their level of ability to grasp information quickly. This intelligence test would supposedly predict who was a “late bloomer”: someone who would have a sudden increase in intelligence within the next year. This was called the Pygmalion study. However, the students that the teachers were told as being late bloomers were selected at random and there was no actual evidence of this. After each year for two years, they measured every student’s IQ and it showed that those who were told to be late bloomers scored higher on the IQ test than did the control group (the ones who were told to not be late bloomers) (Jussim & Harber, 2005). In this experiment, the first year showed almost no difference between the control group and the late bloomers. However, in the second year, there was a much more dramatic difference. There is not much to explain this contrast, but it could be due to a longer period being exposed to the different treatment practiced by the teachers. Children also may not fully develop their deductive reasoning skills until they are 11 (Master, 2021), which is the age of the students when the second year was measured. The Pygmalion study backs up the idea of stereotype threat and self-fulfilling prophecy. Stereotype threat is when a negative stereotype impacts someone because they are trying not to fulfill that stereotype (Spencer et al., 2016). The self-fulfilling prophecy theory is when someone is pressured to act a certain way because of expectations that were already put onto them (Jussim, 1986). This can be connected to gender stereotypes and how they might cause self-fulfilling prophecies.

Jussim and Harber (2005) have explained how students internalize gender roles through interactions with teachers by way of the gender role model theory. The gender role model theory states that if students see the teacher as someone similar to themselves, then they tend to believe that what the teacher is good at, so are they. For example, if a man taught a boy on the subject of pre-algebra poorly, the boy would think he is not proficient in pre-algebra. If a female teacher is good at math and science, then the female students tend to believe they are also good at math and science. However, if the female teacher is not as skilled in math and science, then the female student might think the same thing about themselves. Furthermore, how long the teacher has been teaching influences how they depict gender roles because they form generalizations based on their past experiences. The longer the teachers have taught in their career, the stronger the distinction they have between boys and girls are (Huang et al., 2023). These sharp distinctions the teachers have can then be internalized to their students.

In the science, technology, engineering, and math (STEM) community, there are many gender stereotypes about who is good at what and who should go into what field. This may affect what classes they take in school and how well they perform in those classes with the influence of these stereotypes. This relates to the balanced identity theory (BIT), which deals with the consistency between attitudes, stereotypes, self-concept, and their self-esteem (Cvencek et al., 2012). Men are typically seen to be more successful and intelligent in STEM fields and women

are typically seen to be more successful in language and reading fields. Throughout school, these ideas impact the children and these stereotypes become such a known idea that students may start believing it (Master, 2021). When this happens, their self esteem and attitude in those fields decrease, throwing off the balance that is described in BIT.

Keller and Dauenheimer (2003) conducted a study that demonstrated stereotype threat in the context of gender. They gave 15-year-olds a math test and told half of them that boys usually did better than girls, while the other half did not get told anything. Those who were told nothing showed no difference in score between the boys and girls. However, among those who were in the high stereotype condition, girls had performed significantly worse. In another similar study conducted by Danaher and Crandall (2008), students who were taking an AP Calculus AB exam were asked about their gender either before or after they took the test. Girls who were asked before they took the test performed 33% worse than those who were asked after. This demonstrates how the role of negative stereotypes subconsciously has a negative effect on children and that it prevents them from reaching their full potential. The students get apprehensive about fulfilling this stereotype, therefore heightening stress and anxiety levels which distract from the task at hand. One should take into account that Stricker and Ward (2015) have disagreed with Danaher and Crandall (2008), arguing that they only focused on mathematics and that their effect size was too small. However, when Stricker and Ward (2015) conducted a similar study in reading comprehension, they had the same results as Danaher and Crandall (2008), contradicting their stance. Danaher and Crandall (2008) responded to Stricker and Ward disagreeing with their stance, saying that Stricker and Ward (2015) were too conservative with what they believed to be a significant difference and that this was an inexpensive solution.

Inglis and Hagan (2022) recreated an experiment similar to Danaher and Crandall's (2008). However, this time, they did not receive the same results as Danaher and Crandall (2008). In fact, for females, those who were asked their gender first actually did better than those asked later. Although, one should take into account that this result included coeducational schools as well as all-girls schools. This may affect the results because those in an all-girls school may not be as impacted by the gender stereotypes compared to those in coeducational schools.

By looking at these experiments, one can see how teachers, stereotypes, and environment can lead students to internalize stereotypes. This could negatively impact our confidence in certain areas which would decrease our performance in that area, when we could have alternatively done well. This depicts how ideas about gender roles can be absorbed by children and how that can cause gender differences in academic performance depending on the subject studied. Parental guidance and personality influence academic performance along with gender roles.

Career choice

In this section, I will be discussing how career choice is affected by the cultural settings we are surrounded by. Furthermore, I will explain history's role in shaping our societies today and how that might affect gender roles.

There are different meanings to how gender roles are perceived throughout the world. The history of certain geographic and demographic areas across the globe might have an effect on the internalized gender roles that have developed across the world. For example, in Italy, women were able to have more favorable positions in society due to its commercial culture. On the contrary, places like China, where agriculture and farming was a large part of their culture, meant more unequal gender roles since it needed more physical strength which is what the men had over the women (Bentley, 2023). Culture is the manifestation of the relationship between symbols, rituals, and values that distinguish a group of people from one another (Malach - Pines & Kaspi - Baruch, 2008). Culture also affects career choice, which is what I will discuss in this section.

A systematic review done by Akosah-Twumasi et al. (2018) looked at factors that influence career choices in individualistic and collectivist cultural settings. An individualistic cultural setting is one where society emphasizes the individual over the entire group. A collectivist cultural setting is one where they emphasize the entire group over the individual (Triandis, 2001). Joanna Briggs (2018) revealed that those who were mainly influenced by family expectations came from collectivist cultures and that the more similar their career was to their parents, the more confident they were in that career path. In individualistic settings, personal interest was the major factor that led to career choice and the people in individualistic settings were more independent with their decision making.

Intrinsic motivation is the drive to do something out of interest and enjoyment rather than external rewards (Fishbach & Woolley, 2022). Multicultural youth who were more connected to their host country were more intrinsically motivated in their decision making. There were only three articles out of the thirty that Akosah-Twumasi et al. (2018) looked at that explored bicultural youth and their career decision making. From these three articles, Akosah-Twumasi et al. (2018) found that students who were US and Asian born who adhered more to their Asian values were more likely to receive support for science related careers and bicultural Chinese students who were more adhered to Canada were intrinsically motivated in their career decision making (Fishbach & Woolley, 2022).

Pines and Baruch (2008) conducted a study on how career choice was influenced by culture. Their experiment consisted of 390 male and 357 female MBA students from Israel, United States, United Kingdom, Turkey, Cyprus, Hungary, and India who self-reported their career choice in management (Czarniawska-Joerges & Wolff, 1991). They concluded that there are two

categories that influence choice of a management career: biological theories and social theories. The evolutionary theory is most relevant under biological theories. It states that men tend to create hierarchies and women tend to create more networks and connections. This is because men's ancestors would be in hunting bands whereas women would be in gathering bands, therefore leading to the development of different skills (Malach - Pines & Kaspi - Baruch, 2008). Based on this theory, the gender differences among management career choices among the MBA students were expected to be greater than the cross-cultural differences and quite large. The social role theory focuses on social norms, stereotypes, and gender roles (Eagly & Wood, 1999) and goes under the social theories. Using the social role theory, differences in management should be a result of learned gender roles (Eagly & Wood, 1999) and both gender and cross-cultural differences were expected to be large.

Pines and Burach (2008) looked at these theories while examining the cultural and gender differences among the MBA students. Their most consistent finding was the significant cross-cultural differences and less significant gender differences. While women were found to have a greater sense of meaning in their work, their views on the career were similar to men's within their own culture. Women scored higher than men on training and education opportunities, their own education and training, their competence and abilities, and lack of access to other career options. However, these were the only factors that showed gender differences.

In this section I went over how cultures influence career choice, work habits, and how those might be part of a larger societal problem that started a long time ago. The social role theory encompasses a lot about gender role theory, stereotypes, and social norms. These all played a big part in determining academic achievement, especially the difference between men and women. Some disagree, stating that most differences are due to biological reasons, not social reasons. This is what I will explore in the next section.

Societal Impacts

It is sometimes argued that gender differences are purely biological and that social factors have no impact on these differences. This means that biological characteristics such as genetics and hormones affect the dissimilarities between men and women (Krampen et al., 1990). According to this view, behavioral and cognitive attributes between the genders are exclusively innate and not influenced by society or cultural expectations.

However, I argue that social factors play a vital role in shaping gender differences. Children are exposed to a wide range of stereotypes that affect their understanding of what it means to be male or female at a young age. This includes parents, media, or schooling systems.

One example of social influences is how boys and girls are raised in the context of culture. Research has shown that parents often show bias in what they give their children as toys,

clothing, and activities (Kollmayer et al., 2018). What they provide their kids are often gender-specific such as pink clothes and dresses for girls, or green and blue shirts and shorts for boys. This reinforces the idea in children that certain objects and behaviors are more appropriate and socially accepted for a certain gender. Furthermore, girls are more likely to be encouraged to play with dolls and participate in nurturing activities. On the other hand, boys are more likely to be encouraged to play with trucks or more aggressive toys like action figures (Campenni, 1999). These early experiences help to mold and internalize gender roles and behavior early on which influence future life aspects such as career and relationships.

Moreover, societal expectations of what is masculine versus feminine continue throughout our lives to shape who we are as individuals. In many cultures, women are displayed as nurturing, empathetic, and passive, whereas men are displayed as assertive, competitive, and independent (Campenni, 1999). These social norms contribute to differences in behavior and interests between genders, as people tend to follow those roles. For instance, women may choose caregiving professions such as nursing or teaching because those roles align with the nurturing traits that society associates with women. Men may choose leadership roles in business or politics for the same reasons, except instead of nurturing traits, the emphasis is on assertiveness and independence (Martin et al., 1995).

Finally, the gender roles across different cultures supports the idea that many gender differences are not purely biological. Cross-cultural research has shown that the gender roles assigned to men and women can vary from one society to another. Some cultures have more similar gender roles, where men and women participate equally in the same activities, whereas others are more distinct roles with clear differences between the genders. The way men and women behave depends largely on context. For example, in Scandinavia, men are the ones who take on what is considered women's roles in the United States, like taking paternity leave. Similarly, women in Scandinavia are the ones often found in leadership roles, in contrast to the United States women roles (Ramakrishnan et al., 2014). This inconsistency across cultures depicts that gender differences are not simply biological, but are also influenced by social and cultural contexts (Kaul, 2021).

While I acknowledge that biological factors contribute to gender differences, they do not account for all behaviors, roles, and identities across society. Socialization, cultural norms, and societal expectations have an important influence on the differences between men and women. It is essential to recognize the impact of social factors in the development of gender differences.

Conclusion

Difference in academic performance between genders relies on multiple factors including parenting techniques, society, and culture. First, we looked at the basic gender differences in

academia, like skills, GPA, and tests, that are relevant to this topic and to which degree. Next, parenting styles such as permissive, authoritative, and authoritarian, and how they can influence gender roles is introduced. I also talked about socialization and gender roles that are influenced by teachers and how it is related to stereotype threat. Lastly, I touch on gender differences in career choice in the context of culture and how the social role theory plays into it.

There is limited research on the social aspect of gender differences compared to the extent of research conducted on biological differences. Much remains to be discovered in terms of how social factors influence gender. There is also a lot of potential for researcher bias in this field of study. The study of gender differences is a complex, multifaceted and interdisciplinary field, of which this paper examines only a small aspect.

By looking at the results and degree of disparity between genders, we could use this information for future research discussing policy making and things we need to be taking into account when analyzing an experiment. When looking at where differences come from or the impact they have on society, new policies could be put into schools or workplaces to ensure more equality and opportunities offered to everyone so no one person or group of people would be disadvantaged. This could also create a more efficient system as everyone would be allowed to pursue their full potential and direct that energy into creating a more productive community.

After reviewing the content discussed in this paper, society needs to take more consideration of implications that gender introduces to separate research. There is concern about underrepresentation for women in research, like clinical trials. Women, although much more integrated into the professional setting than in the 1900's, still have not reached the level of an egalitarian outlook on males and females. A lot of potential is wasted as women's capability remains dormant due to the conscious or subconscious societal view that women are less capable than men. Recognizing and understanding gender differences is crucial for creating a more equitable society, where these differences are acknowledged and accommodated rather than overlooked. By embracing them in a way that promotes fairness and inclusivity, we can create a world that provides equal opportunities while valuing diverse strengths and perspectives.

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