

How Do Nature And Nurture Affect The Gender Stereotypes In Education?

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Introduction

The notion of nature and nurture are considered classical opposites of each other. They, at times, complement each other as well. An individual is born by nature, and it is nature that has decided about the birth of an individual, whereas nurture helps individuals to learn so that they can become something, for instance, civilized (Becker, S. W., & Eagly, A. H. 2004). A similar debate continues in an educational setting as well, and it questions whether gender stereotypes in education are influenced by nature or nurture. Research studies suggest that men and women face gender stereotyping in the educational environment despite the fact that the concept of gender equality is promoted in educational institutions to a great extent. Further, the promotion of gender equality in the labor market has also been one of the main agenda of various countries, especially in the European Union (European Commission, 2015). Further, stereotypes still exist in the systems with respect to the performance of the students and their motivational levels as well. Not only this, but there are various other factors, such as vocational aspirations. Their participation in different fields also manifests gender differences despite the fact that various educational opportunities are being introduced by the countries to promote gender equality (Kollmayer, M., Schober, B., & Spiel, C. 2016).

Masculine and Feminine are the two sexes between which the world is segregated in terms of species. The word sex is often confused with the word gender, however, both have different meanings (Chou, 2011). Sex deals with the biological, physical, and anatomical areas of human life, whereas gender encompasses more of the social and cultural differences between males and females. Further, society plays a pivotal role in designing the roles of both males and females so that differentiation can be made between the two in order to maintain a social order within a society (Campbell, A. 2012). According to Simone De Beauvoir, an individual is not born as a woman. It becomes a woman.

Thus, the statement clearly manifests that gender is an outcome of culture and society. There are beliefs in a society that are adhered to in order to maintain social order. Society plays a significant role in defining the roles of gender. Sam Killermann elaborates that there are three components on which gender can be classified: gender expression, gender identity, and biological sex. Moreover, gender identity and gender expression are always based on societal values (Clark, R. D., & Hatfield, E. 1989). These are shaped by the society. It is the society that determines and approves the right behavior that an individual is allowed to demonstrate in order to be a part of society. This essay shall discuss both perspectives on the gender debate, namely that gender is determined by nature, and the environment is responsible for it.

There are a variety of areas that fall in the realm of this debate and are mostly considered as taboos. Those who support the idea that gender is influenced by nature, such as biological scientists and genetics, argue that everything is predetermined about the gender and sexuality of a person; on the other hand, psychologists and evolutionary theorists believe that there are certain stereotypical and the environmental influences that are responsible for the differences in the gender (Daly, M., & Wilson, M. 1983).

Moreover, Gender stereotypes play an important role in the development of an individual, and the importance of education cannot be denied while shaping the personality of an individual, either male or female. Gender stereotypes develop different expectations of men and women with respect to the skills they should possess and the attributes their personalities should demonstrate in order to fit into the frame set by society through these stereotypes. These stereotypes are the lens through which society sees individuals and categorizes them as male or female. Education mediates between these two poles and helps to modify the roles played by the individuals irrespective of the context of being a male and a female. It is education that has caused society to foster the notion of gender equality in a way that has now become one of the sustainable development goals of the United Nations.

Discussion

One of the most fluid concepts that have been studied in the past and in different cultures is gender. Most cultures and societies have always restrained gender into two binaries that include male and female; however, mainstream societies as well have introduced other concepts of gender in the late 1970s. A clear distinction has always been made between societies on what characteristics would cause a man and woman to fall into a specific category and to identify themselves as males or females. Further, the physical characteristics of the males and females also support the claim made by those who believe in the theory that the differences are created by natural processes. Sexual characteristics are based on sexual dimorphism, which is the reason there is a strong belief that gender differences are based on nature.

The role of stereotyping cannot be ignored in this regard. It causes both males and females to be different at a cognitive level as well. It means that the situations and the tasks they approach also differ in the way they are perceived and executed. Further, research studies also suggest that the behavioural patterns are the outcome of the human brain, they may also be because of the hormonal secretion as Moir (2001) found that the recognition in the female babies who were four years old were more as compared to the male babies. Moreover, it was also found that the brains of males tend to be 10% larger than females; however, when the body-to-weight ratio is applied, the female brain turns out to be greater. Such explanations are also used to justify the differences in the behavior of girls in the educational context as well.

The girls are better behaved and focused on learning, on the other hand, the boys show more disruptive tendencies in their attitudes. Research studies suggest that gender stereotyping affects

school performance as well. A study conducted by the OECD (2014) suggests that the performance of boys in mathematics is better than that of girls in most countries. However, girls outperform boys in reading. Stereotyping affects not only the performance of the students but also student motivation (Glienke & Burg, 2006; Wigfield, Battle, Keller, & Eccles, 2002).

The differences between the average minds of males and females are interesting. These differences must be realized and recognized so that they can lead to mutual respect between the two genders. These differences are subtle and are related to the relative proportion of the different drives that are present in the typical male and female mind. Such sort of debate regarding the role of biology, even while considering the role that culture plays in the lives of individuals and acknowledging the importance it has in the lives of individuals, was not possible in the 1960s and 1970s. Those people who investigated the role of biology have been accused of defending essentialism in a way that has caused inequality between the sexes perpetuated inequalities. There was no such climate where the scientists could have asked questions regarding the mechanisms of nature. In the contemporary world, the nature and nurture debate has set the pendulum in the middle, and those who feel a deep concern regarding ending the inequality and oppression from society can talk freely about the biological differences that are found between the minds of an average male and a female (Hilliard, L. J., & Liben, L. S. 2010).

Further, the differences in the minds studied in the field of sex require that the proceedings be made in a way that is sensitive to the history of conflict and that must look for the evidence so that the facts cannot be overstated in opposite to what the actual scenario is. One important point of consideration is that the data does not consider individuals as a whole but the merits of individuals, as these merits vary from person to person. It is because of the fact that it is not necessary that an individual is typical for his/her sex.

Research studies have suggested that socialization and learning play an important role in the development of sex-related differences (Bandur, 1977; Kagan, 1964). Further, the research studies have also revealed that certain factors such as stereotypes, norms, roles, and identities that tend to support the differentiation in gender in terms of cognition and social behavior are also important for social and personality psychologists (Eagly, 1983; Deaux, 1984). Few studies have taken into consideration both the biological factors and factors that can impact socialization; however, the emphasis in most of the studies was given to nurture (Macooby and Jacklin, 1974).

Many international institutions are working on this issue to curb the gender gap. One idea that is widely used throughout the world is that female teachers must be recruited so that the gender gap should be reduced. However, this is not the only solution. One important consideration in this regard is that most of the time, the only option left for females is to become teachers in developing countries so they can earn enough to cover their expenses. Most cultures also see teaching as a prestigious job for women, so they are not encouraged to participate in other professions. Specifically, in developing countries where family traditions do not allow women to even work, this permission tends to appear as an only opportunity. Moreover, the skill set of the females is also limited as they are supposed to

be restrained from domestic chores.

The brains of the males and females are defined by two key dimensions: systemizing and empathizing. Those individuals who have a certain psychological profile may be categorized as talented and systemizers; however, they are also 'mind-blind' at the same time (Baron-Cohen, 1995). Research studies suggest that the female brains are good at empathizing, whereas the male brains are good at systemizing. The characteristics that led to this conclusion are multifarious. The preferences and choices individuals make play an important role in deciding the category in which they fall (Eagly, 2012).

The boys strongly prefer to watch videos of cars than to watch a film that shows the human face, etc., at the age of one. This is an example of a predictable mechanical system. The preferences demonstrated by the girls are opposite to these. The eye contact demonstrated by the girls is greater than that of the boys at the age of 1. Research studies suggest that even at this stage of age, these differences may be present due to socialization. However, the evidence that exists for the differential socialization that contributes to sex differences does not tend to be sufficient information. Research studies done by Connellan and Colleagues show that among babies who are one year old, the boys look longer at the mechanical mobile -that contains a system of predictable law of motion as compared to the face of a person that is nearly impossible to systemize- as compared to the girls. The girls of the one-year-old show an opposite profile. Thus, after seeing this scenario, the conclusion raises the possibility that culture and socialization may partly determine the development of a brain, and it depends on whether it is with a stronger interest in systems or a female brain that has a strong interest in empathy. On the other hand, biology may also partly determine this.

Research studies suggest that there is a direct correlation between gender differences in education and the socialization process. As the socialization process increases, gender differences also tend to increase, and individuals are hampered from utilizing their full potential. This finding has been affirmed by other research (Evans, Schweingruber, & Stevenson, 2002; Retelsdorf, Schwartz, & Asbrock, 2015).

Culture has remained one of the major determinants, and the information that is present in nature travels through genes intergenerationally. The information in culture travels neutrally as the individuals get the education into transmissible cultures. The determinants that gauge the behavior of the plants and the animals are never political, economic, anthropological, technological, ethical, religious, etc.

Moreover, a deliberate modification that is made within nature tends to separate the humans in their cultures from nature, which is increasingly so high in technology cultures. Since the human genome is being decoded, people are now standing at a point where they can rebuild even their own genetic culture (Fine, D. 2010).

Cultures, particularly the present cultures, tend to change more rapidly in recent times, whereas the genes of an individual hardly change in thousands of years. Thus, the genes that are slowly paced can

in no way find pace with the fast-paced cultures and face certain challenges (Lott, 1985). A mind that is relatively pliable and educated is more of an adaptive advantageous position as compared to a mind that is with instinctive routines. The complexity of the mind is so huge that the number of neurons and their possible connections can result in a myriad of cultural options.

Thus, in this way, it exceeds the number of gene codes, so it is possible for the genes to specify all the connections amicably. These genes of an individual create an organism whose behavior results from education beyond direct genetic control. The more knowledge is inserted, the more the genome selected will be in the position where it could be instructed maximally by a tradition that is increasingly knowledgeable. It reflects that consistent and continual learning firstly requires a stable intellect, and further, due to the consistent approach of this for a long period of time in the nuclear families, it results in the usually large brain babies (Finkel, E. J., & Eastwick, P. W. 2009).

Conclusion:

To sum, human beings (and other animals) are part of the world only in evolutionary, biological and ecological senses that is the composition of nature and on the other hand, the homo-sapiens seek wisdom by means of culture that is nurture. Thus, nature determines the behavioral outcomes of human behavior. Research studies suggest that in the future, the debate regarding the differences between gender and sex will take an ideological leap. The concept that favors this ideological leap has been witnessed in consideration of gender equality by the United Nations in its sustainable development goals. It works on overcoming the ideological barriers and the identity biases that are caused by the limitations caused by these ideological barriers. Further, the theories catering to such areas shall also come to play a major role in this regard.

It is because of the fact that the theories present intellectual challenges and cause researchers and scientists to model the intrinsic dependencies of nature and nurture in thorough detail. These issues are further aggravated by the media and require proper working to be addressed so that simple frameworks can be created in order to satisfy the needs of the public. Not only this, but the importance of Education cannot be sidelined while discussing the future implications of the topic. Education plays a pivotal role in shaping society and clarifying the confusion that might arise. It enlightens the minds of individuals and helps them understand the core issues that are required to be addressed rather than engaging in the debates that either nature or environment shapes their behavior.

References

Abelson, R. P. (1985). A variance explanation paradox: When a little is a lot. *Psychological Bulletin*, 97, 129-133. doi:10.1037/0033-2909.97.1.129 Alexander, M. G., & Fisher, T. D. (2003). Truth and consequences: Using the bogus pipeline to examine sex differences in self-reported sexuality. *Journal of Sex Research*, 40, 27-35. doi:10.1080/00224490309552164

Baksh, M. Nature vs. Nurture and the Gender Divide.

Baron-Cohen, S., Campbell, R., Karmiloff-Smith, A., Grant, J. and Walker, J., 1995. Are children with autism blind to the mentalistic significance of the eyes?. *British Journal of Developmental Psychology*, 13(4), pp.379-398.

Becker, S. W., & Eagly, A. H. (2004). The heroism of women and men. *American Psychologist*, 59, 163–178. doi:10.1037/0003-066X.59.3.163 Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review*, 75, 81–95. doi:10.1037/h0025583

Campbell, A. (2012). The study of sex differences: Feminism and biology. *Zeitschrift für Psychologie [Journal of Psychology]*, 220, 137–143. doi:10.1027/2151-2604/a000105 Carothers, B. J., & Reis, H. T. (2013). Men and women are from Earth: Examining the latent structure of gender. *Journal of Personality and Social Psychology*, 104, 385–407. doi:10.1037/a0030437

Chou, K.-H., Cheng, Y., Chen, I.-Y., Lin, C.-P., & Chu, W.-C. (2011). Sex-linked white matter microstructure of the social and analytic brain. *NeuroImage*, 54, 725–733. doi:10.1016/j.neuroimage.2010.07.010

Clark, R. D., & Hatfield, E. (1989). Gender differences in receptivity to sexual offers. *Journal of Psychology and Human Sexuality*, 2, 39–55. doi:10.1300/J056v02n01_04

Daly, M., & Wilson, M. (1983). *Sex, evolution and behaviour* (2nd ed.). Belmont, CA: Wadsworth.

Eagly, A. H., Eaton, A., Rose, S., Riger, S., & McHugh, M. (2012). Feminism and psychology: Analysis of a half-century of research. *American Psychologist*, 67, 211–230. doi:10.1037/a0027260

European Commission. (2015). *Evaluation of the strengths and weaknesses of the Strategy for equality between women and men – A review of the situation and recent progress*. Brussels: Office for Official Publications of the European Communities.

Fine, D. (2010). *Delusions of gender: How our minds, society, and neurosexism create a difference*. New York, NY: Norton.

Finkel, E. J., & Eastwick, P. W. (2009). Arbitrary social norms influence sex differences in romantic selectivity.

Hilliard, L. J., & Liben, L. S. (2010). Differing levels of gender salience in preschool classrooms: Effects on children's gender attitudes and intergroup bias. *Child Development*, 81, 1787–1798. doi:10.1111/j.1467-8624.2010.01510.x

Hines, M. (1982). Prenatal gonadal hormones and sex differences in human behaviour. *Psychological Bulletin*, 92, 56– 80. doi:10.1037/0033-2909.92.1.56

Kollmayer, M., Schober, B., & Spiel, C. (2016). Gender stereotypes in education: Development, consequences, and interventions. *European Journal of Developmental Psychology*, 1-17.

Lott, B. (1985). The potential enrichment of social/personality psychology through feminist research and vice versa. *American Psychologist*, 40, 155-164. doi:10.1037/0003-066X.40.2.155

Meece, J. L., Glienke, B. B., & Burg, S. (2006). Gender and motivation. *Journal of School Psychology*, 44, 351-373.

Moir, A., & Moir, B. (2001). *Why men don't iron: the fascinating and unalterable differences between men and women*. Citadel Press.

Wigfield, A., Battle, A., Keller, L. B., & Eccles, J. S. (2002). Sex differences in motivation, self-concept, career aspiration, and career choice: Implications for cognitive development. In A. McGillicuddy-DeLisi (Ed.), *The development of sex differences in cognition* (pp. 93-124). Westport, CT: Ablex.