Are gender differences fact or fiction? Discuss with respect to two distinct measures or traits.

Gender is 'the behavioural, cultural, or psychological traits typically associated with one sex' (1); it plays an extremely large part in the society we live in, salient from birth and affecting each and every one of us until death. The question of whether it is fact or fiction is, effectively, asking the same from us as that incessant battle between those two indefinite heavyweights; nature vs. nurture. Fact is 'a piece of information presented as having an objective reality' (1) and must have proof. Factual gender differences are fixed, and biological, whereas fictional gender differences, though it can never be explicitly claimed that they do not exist, are due to social environment. According to the nurture side of the debate these differences are not fixed, but constantly fluctuate and change, and so cannot be called fact. Fiction, 'a useful illusion or pretence' (1) can be applied to the social factors involved, as gender difference is very much a subjective concept incorporating all manner of views about gender stereotypes, self-concept and perception, yet still everyone experiences them be it advantageously or otherwise.

Biological gender difference is said to be innate, unchangeable and inevitable from birth, the stereotypical qualities of each gender are determined by genetic makeup, evolution and hormones, like testosterone. This is exhibited by neuroscience and a never ending list of studies incorporating an array of methods; looking foetal testosterone level, brain scans or observation of new-born children to expose apparent gender difference. It is the more widely known and accepted of the two due to the explosive popularity of evolutionary psychology and genetics in the 1990's (2) and gender based books such as *Men are from Mars, Women are from Venus*.

The nurture side of the debate is focused on social context and involves minimal reference to genetics. It became well known in the 1960's because of the rise of feminism, and the use of social theories to explain radical environments and is the understanding that gender differences are in fact due to sociocultural environment that shapes our behaviour and ability. It illustrates that gender is a flexible notion through carefully constructed and controlled studies to cast doubt on the idea that gender differences are intrinsic. They focus on the idea that gender stereotypes are what mediate gender difference. Stereotypically all boys/males naturally exceed in the more systematic and maths based endeavours of the world like yet are extremely limited in their empathetic capabilities. This more agentic profile allows them to become successful business men and scientists, rising to the top of career ladders all over the world. The opposite is said for girls/females, with their altruistic traits, innate ability to be sensitive to others and their careful and calming approach allows for more nurturing careers. But their lack of scientific competence leaves the female gender clinging to the lower rungs, with lower paying jobs and extra responsibility in their (usually) care based careers and the 'second shift' (3) no matter how much they earn (4). There are of course inherent sex differences, in physical appearance and functions of certain organs and systems but does it necessarily mean that there are inherent gender

differences?

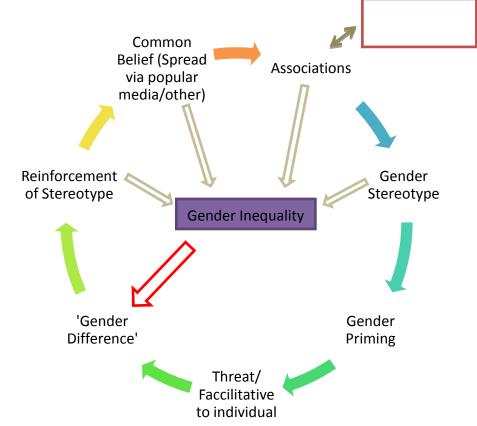
Differences in preference are traits that have been looked at a substantial amount in recent years. Desmond Morris states that these 'differences all occur long before there can be adult influences or 'gender role' bias. They are clearly inborn.' (5) But studies have shown that Morris and his biological acquaintances are wrong: adult influence can create gender bias even when the parents themselves are trying their best to be gender neutral. Before babies are able to differentiate between male and female faces. It has also been shown that mothers spend more time with female children, through body language children are able to learn what is acceptable and what isn't even if it isn't explicitly mentioned (6). So if, for example, a mother implicitly expresses her disapproval of her daughter playing with a fire truck, she may involuntarily frown or retreat, forming a foundation for what her child feels is acceptable and not with reference to gender. When toys were presented in a positive manner specific to the gender of the child, the children readily played with them regardless of the colour or nature of the toy (7).–Nature 0, Nurture 1.

Another example of preference is the claim that 'women have been biologically programmed to prefer the colour pink', it claims that it could be from an evolutionary point of view that they had to be able to spot ripe berries and fruits or that women because of their caring nature have become sensitive to the colour spotting symptoms such as 'a child flushed with fever... abilities as 'empathizer'' (8). This however was also investigated in young children in a large cross-sectional study. Children aged 7 months to 5 years old were offered choices of 8 objects, one of the objects always being pink. By age 2 more pink was chosen in girls than boys, and at 2 ½ years they had a 'significant preference for the colour pink over other colours. At the same time, boys showed an increasing avoidance of pink', they also found that there was 'no evidence for a preference for pink in infancy'. (9) This was because as soon a child is alerted to which category they belong, male/female, they look for ways to conform to the stereotype. This is a blow for biological based gender difference, especially considering that innateness is the foundation of its theory. Furthermore, as published in the Ladies' Home Journal (1918), 'the generally accepted rule is pink for the boy and blue for the girl.. pink.. a more decided and stronger colour .. for the boy, while blue, .. more delicate and dainty.. for the girl' (10). So unless the genetic makeup of children changed sometime between the 19th-20th centuries this difference in preference for children to certain colours is not valid. - Nature 0, Nurture 2.

Biological aspect is supported by neuroscience which convinces many that gender is hardwired, and that gender differences are immutable and unavoidable. This, however, is not the whole truth, the large majority of these studies tolerate huge assumptions and generalisations and are, for the most part, methodologically invalid (11). This deems the large majority of the results found to be unreliable, but the growing popularity of gender related books containing the misleading material creates negative repercussions, altering the social environment and consequently the society we live in. A worrying example of this is of an education system taking the widely 'known' ideas from these studies and books to be truth and 'tailoring' education, an example in Cordelia Fine's *Delusions Of Gender* of a school that 'made maths applicable to girls' by inserting domestic conundrums. Likewise, rather than evaluating the emotional responses of characters in books such as *Lord of The Flies* boys were asked to draw a map of the island because of their apparent lack of empathetic ability.

Acting with a gender stereotype is often misinterpreted as the individual having a weakness or strength of their particular gender, but it has been shown to be due to gender priming. The act of gender priming can be triggered by even the most every day of things, and is a merely a reminder of gender, but the effects of it can be quite powerful. It prompts association with gender stereotypes, initiating a comparison between the situation at hand and their gender compatibility with it. Whether the gender stereotype is compatible or incompatible creates facilitation or inhibition in how the individual perceives their performance will be in the situation at hand (possible gender threat). This is what usually determines choices, with the vast majority being based on probability that the path chosen will lead to success or failure. This is essentially what most call a gender difference and is at this level a kind of self-fulfilling prophecy. The media and sexism create a world that bombards populations with misleading facts and figures, advertisements and creates superficial and unspoken social norms that dictate the behaviour of many. This happens in the shadows, without individuals themselves noticing their own implicit sexual discrimination. But it's not sexism is it? It's modern and scientific and 'proven'! Really? It has been seen in a vast array of studies that this 'proven' research had previously misinterpreted gender difference and attributed it to biological factors. For example the classic assumption that females are inferior when it comes to mathematical ability - long since believed that it was innate ability, supported by studies that even children as young as 6 believe boys are better at maths (12)- has been found to be untrue. In one of many crosscultural studies no gender gap was found in mathematical ability. But what was found was a pattern in that the status of women in each country coincided with the size of gender gap, the more women in parliament the smaller the gender gap, which would imply that differences were due to more social factors such as gender equality, female education and status of women than innateness. (13)

With the 'fact' behind the currently fact based theory of the biological innateness of gender difference left, effectively, hopeless. It is more likely that innate gender difference is more fiction than fact. Any gender difference is in fact due to the social, cultural and political environments in which we live.



Gender differences do not exist until our actions and reactions cause them to manifest. But having manifested they continue to affect lives, never ceasing. They are not fact in the sense that they are never static or constant, their basis itself is malleable, going back to the definition of gender, it is based on associations. These associations change with time, with both great revolutions, and small seemingly menial actions. The constant build up creates a knock on effect and reverberation which has a continual effect on social environments, creating a vicious cycle, perpetuated by the relentlessness of ever-changing gender stereotypes. The longer this roundabout is tolerated the harder it becomes to stop, with the accumulation of millions of years of gender bias and sexism creating nauseous side effects of apparent gender difference and inequality. All of this has a detrimental effect on the 'inferior' sex (dependent on the situation at hand, e.g. female in a maths exam, male interviewing for job as a nanny), in that they realise their 'weakness' in the area, (only known, of course, because of those misleading articles and studies in the media) that they are, apparently, intrinsically and inevitably destined to fail, because females are not systematic enough and males are not empathetic enough. This creates huge gender gaps in jobs in science and mathematics and leads to even more gender stereotypes, resulting in females only being 'suitable' for jobs lower down in the employment food chain, leaving them, in comparison with men, in the financial gutter. This injustice is also forced upon the small minority of women that are in powerful positions; with the only way to overcome gender difference being ignoring gender completely. Women of high authority must either change themselves to become more masculine, or be forced to 'prefer' less engaging and intellectual career types. But no matter what they do they are referred to with extremes, 'too soft to be capable' or 'too harsh to be tolerable'. This damned-if-you-do-damned-ifyou-don't attitude towards powerful women is something that is not easy to ignore. With nicknames like the and Iron Lady, Ice Queen, women who are in positions of power are more likely to step down than continue having abuse hurled at them.

Gender difference is currently fiction, but if gender inequality is not stopped it could soon become fact, gender gaps will increase in size. As Albert Einstein said, '*The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking.*' Gender difference is only fact to those who believe it is fact. But attempting to eradicate such a ubiquitous part of society would require each and every person to change their views.

Bibliography

1. Merriam Webster (Website). http://www.merriam-webster.com.

2. **Cassidy, A.** Popular evolutionary psychology in the UK: an unusual case of science in the media? *NCBI.* http://www.ncbi.nlm.nih.gov/pubmed/16193609, 2005.

3. Hochschild, Arlie. Second Shift. 1990.

4. **Belkin, Lisa.** *Quoted Sampson Lee Blair 'and the most sadly comic data is from my own research'.* s.l. : New York Times, 2008.

5. **Morris, Desmond.** *The Human Sexes: A Natural History of Man and Woman (pg 12-13).* s.l. : Network Books (Part of BBC Worldwide Publishing), 1997.

6. *Pg 1512.* **Castelli, De Dea & Nesdale.** Study on whether children would notice and incorperate non spoken racial acceptance or non spoken racial neutrality. Results showed that the children recognised the body language seen in the videos : No other studies have yet been investigated like this with refrence to gender, 2008.

7. Rhodes, Deborah. pg 19. 1997.

8. Why Girls Like. Masters, Coco.

http://www.time.com/time/health/article/0,8599,1654371,00.html : Time Website, 2011.

9. Vanessa LoBue, Judy S. DeLoache. Pretty in pink: The early development of gender-stereotyped colour preferences. [book auth.] Issue 3, pg 656-667 Vol 29. *British Journal of Developmental Psychology.*

10. *When Did Girls Start Wearing Pink?* **Maglaty, Jeanne.** http://www.smithsonianmag.com/arts-culture/When-Did-Girls-Start-Wearing-Pink.html : s.n., 2011.

11. Fine, Cordelia. Delusions Of Gender: The Real Science Behind Sex Differences. s.l. : (Ch 14 - Brain Scams), 2010/2011.

12. http://www.child-psych.org/2011/03/math-is-not-for-girls-the-stereotype-begins-early.html.

13. *No Gender Gap in Math.* s.l. : http://www.scientificamerican.com/podcast/episode.cfm?id=no-gender-gap-in-math-10-01-06.

14. Kane, Emily. 2006a.