

Theory of knowledge Essay

“Avoiding bias seems a commendable goal, but this fails to recognize the positive role that bias can play in the pursuit of knowledge.” Discuss this statement with reference to two areas of knowledge.

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One of IB’s prominent learner profiles is open-mindedness. A report on IB’s website states, “Those who try to be open-minded must steer clear of bias...”¹. Studying the IB curriculum, I have therefore been under the impression that avoiding biases does seem like a commendable goal in the pursuit of knowledge. However, this TOK title states that people like me often fail to recognize the positive contributions of biases in the understanding and acceptance of knowledge. A “bias” is a preconceived opinion or prejudice towards someone or something. The first half of the title suggests an ideal “pursuit of knowledge” connotes obtaining unbiased knowledge driven by deductive reasoning. But the second half of the title suggests obtaining objective knowledge may not always be a “commendable goal”. Two important stems of bias are “emotion” and “intuition” (which are ways of knowing), thus biases may facilitate knowledge production, helping one acquire valuable knowledge. The role of biases might manifest itself differently in divergent areas of knowledge such as the Arts and Mathematics. By analyzing the two disciplines, we would be able to answer the knowledge question, What is the role of bias in the acquisition of knowledge?

Why is an artist inspired to do something? Why do they feel their emotions are worth representing? It is because paintings, sculptures, songs, plays, literature etcetera are a means of catharsis for them, a means of expressing their experiences including

¹ "Research into new routes for new heads - International Baccalaureate."
<https://www.ibo.org/globalassets/publications/ib-research/myop/openminded-report-en.pdf>. Accessed 6 Feb. 2021.

personal bias. Biases spark personal interpretations and create personal connections which are necessary for the pursuit of artistic knowledge. This claim can be explained through a real life example of the famous mural by artists Xena, Cadex, Greta, Niko and Pablo² from the Black lives Matter³ movement.



Picture 1: Mural outside Cup Foods where George Floyd was killed ⁴

In 2020, George Floyd was killed by Minneapolis Police officer Derek Chauvin due to racism.⁵ The artist's used their personal bias to mimesis and spread awareness about

² "Black Lives Matter Street Art Around the World — Runstreet." 6 Jun. 2020, <https://www.runstreet.com/blog/black-lives-matter-street-art-world>. Accessed 12 Feb. 2021.

³ "Black Lives Matter." <https://blacklivesmatter.com/>. Accessed 11 Feb. 2021.

⁴ "Murals for George Floyd around the world memorialize his death" 3 Jun. 2020, <https://www.fastcompany.com/90511807/murals-for-george-floyd-around-the-world-memorialize-his-death-and-show-solidarity-against-racism>. Accessed 14 Feb. 2021.

⁵ "8 Minutes and 46 Seconds: How George" 5 Mar. 2021, <https://www.nytimes.com/2020/05/31/us/george-floyd-investigation.html>. Accessed 9 Mar. 2021.

racial discrimination. Their personal bias was used to create new knowledge and was then converted to shared knowledge. Hence, avoiding bias is not necessarily a commendable goal when emotion is the preferred way of knowing as it is an essential means of pursuing artistic knowledge. To add on, acquiring knowledge in art also depends on how the viewer feels about the shared knowledge. The mural is not avant garde, it is like any other street art, but what made it blow up was the primary emotions felt by the viewers when they stood in front of this painting. Be it people with a dark complexion who were directly able to connect with this painting or light skinned people like Latins who face racism regularly or even blonds and women who face discrimination in their workplace. Any ordinary person who has faced any type of inequality was able to relate to this art piece. The experiences of the people or the groups they belong to affect thinking and behavior and are a source of their personal biases. To conclude, in such cases biases do play an extremely important and positive role because losing one's biases would mean losing one's identity and their unique perception which is necessary in the pursuit of artistic knowledge.

To counter the above argument, it can also be said that biases play a negative role in the pursuit of artistic knowledge when based on intuition. Biases construct a guarded gate within the mind to police new information and therefore may limit the artistic knowledge one can attain. To decipher this claim a real life example of the song titled, "Born this way"⁶ by Lady Gaga can be discussed. In my opinion, the song is an aesthetic, it is backed by chorus percussion, a humming bass and added rumbling synth tones. This song is about self empowerment and is a salute to people of various

⁶ "Lady Gaga - Born This Way (Official Music" 28 Feb. 2011, <https://www.youtube.com/watch?v=wV1FrqwZyKw>. Accessed 12 Feb. 2021.

sexualities, skin colors, nationalities and abilities. The lyrics⁷ however are considered to be controversial⁸ because of its emphasis on the LGBTQ community. I was once performing a dance piece on this song in front of a wide audience. The lyrics however shocked the listeners, especially my aunt as being gay is a systematic deviation towards her religion, Christianity. Knowledge in art is the presence of an opinion about a piece of art in the knower, in this case, my aunt's negative perception towards "Born this way"⁹. My aunt was opposed to this new knowledge as she was affected by her confirmation bias stemming from her religious beliefs. Despite the song's revolutionary music and beautifully written lyrics, intuition emotively colors one's perception. My aunt's intuition further led to her having the Horns Effect as she now did not enjoy any of Lady Gaga's songs, including the ones she once enjoyed. This shows how biases makes one create stereotypes which further lead to the formation of schemas. To conclude, biases cloud ones thinking when conscious reasoning is not put to use. Avoiding biases in such situations does seem like a commendable goal as many people like my aunt, let their biases to perceive art and artists partially leading to a limited pursuit of new knowledge. I will now analyze this title with a contrasting area of knowledge, mathematics, to see if the title has a contradicting conclusion.

Mathematical knowledge helps one understand the world around us based on logic and facts. Mathematicians try to be objective and rational in the conclusions they come to

⁷ Appendix

⁸ "Lady Gaga's 'Born This Way' Changed Political Pop ... - The Atlantic." 11 Feb. 2021, <https://www.theatlantic.com/culture/archive/2021/02/lady-gaga-born-this-way/618000/>. Accessed 14 Feb. 2021.

⁹ "Lady Gaga - Born This Way (Official Music" 28 Feb. 2011, <https://www.youtube.com/watch?v=wV1FrqwZyKw>. Accessed 12 Feb. 2021.

but it is a fact that it is impossible for any human, including mathematicians to get rid of bias completely. Biased may make one close-minded restricting a holistic pursuit of knowledge therefore, avoiding biases in Mathematics is a commendable goal when emotion is the preferred way of knowing. A bias prevalent in the world of mathematics is “sampling bias”. Sampling bias is when data is collected in a way that some members of the population have a higher or lower probability than others. This often happens when humans let their ambition lead their decisions. Facts are stubborn but statistics are pliable. A real life example to explain this is, my cousin is a music producer who makes electronic music and uploads it on various music platforms. My brother wanted to take a survey to calculate how many people generally enjoy his music to put on his resume. He decided to keep a sample size of 100 people but instead of polling 100 random people, he decided to poll 100 listeners who followed him on Instagram¹⁰. 95% people answered they love his music. If these had been random people the statistic may have been significantly low. My brother clearly let his emotions (pride and ambition) come in the way of obtaining credible knowledge as in his resume, he did not mention those 95 people were his followers. Information or knowledge was withheld leading to conjecture. If mathematical knowledge is approached emotionally, the pursuit of that knowledge is likely to be hindered.

With the rise of dependence on technology in today's world, mathematical knowledge plays a vital role in the field of computer science and technology. To counter the argument above, it can be argued that avoiding bias in mathematics is not always a commendable goal for the pursuit of its knowledge. This is especially true when reason

¹⁰ "Instagram." <https://www.instagram.com/>. Accessed 9 Mar. 2021.

is the preferred way of knowing. Biases at times, can lead to a more fast and efficient approach in the pursuit of mathematical knowledge. An example to support this claim is machine learning. Machine learning is a branch of artificial intelligence¹¹ that involves gathering data to generate models to further predict future values. This concept is used in many aspects of our daily life, such as weather forecasting, predicted mobile battery life, predicted stock prices, predicted traffic time on google maps¹² etc. Data collection is generally the most expensive and time consuming aspect of a machine learning project. Because of limited resources, it is sometimes impossible to collect data from all classes/clusters. In this case, one can make use of biases. Bias in machine learning is only based on reason which means that it is possible for one to gain objective knowledge. Some data is known to be more useful and accurate than others, so instead of spending time and effort on data that is not needed, certain datasets can be deliberately ignored or removed. This infers that biases can be useful when properly applied. This mathematical concept demonstrates how deductive and logical reasoning can be used to define how biases are applied which allows us to pursue necessary and efficient mathematical knowledge.

Throughout the essay, I have outlined the two sides of biases as it is important to acknowledge both of them. In the Arts when emotion is the dominant way of knowing, biases promote deeper understanding of certain art pieces and make the pursuit of knowledge more sensible and personal to a particular individual. On the other hand, when intuition is the main way of knowing, the presence of belief bias may act as a

¹¹ "What is Machine Learning? | IBM." <https://www.ibm.com/cloud/learn/machine-learning>. Accessed 9 Mar. 2021.

¹² "Google Maps." <https://maps.google.com/>. Accessed 9 Mar. 2021.

knowledge filter in the pursuit of artistic knowledge. In mathematics, biases mainly stem from either emotions or reason. "Reason" biases can make our pursuit of knowledge more effective while "emotion" biases often lead to inaccurate knowledge that is detrimental to the pursuit of mathematical knowledge. All in all, It is human nature to be biased, it is a fact that it is impossible for one to get rid of it completely as biases shape our identity and uniqueness. The worst kind of biases are the ones that one is not aware of. It is important for us to acknowledge both sides of biases to validate its impact on the pursuit of knowledge.

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Appendix

Few lines from Lady Gaga's song, "Born This Way" ¹³

You're black, white, beige, chola descent

You're Lebanese, you're orient

Whether life's disabilities

Left you outcast, bullied, or teased

Rejoice and love yourself today

'Cause baby you were born this way

No matter gay, straight, or bi,

Lesbian, transgendered life,

I'm on the right track baby,

I was born to survive.

No matter black, white or beige

Chola or orient made,

I'm on the right track baby,

I was born to be brave.

¹³ "Lady Gaga - Born This Way (Official Music" 28 Feb. 2011, <https://www.youtube.com/watch?v=wV1FrqwZyKw>. Accessed 12 Feb. 2021.