To What extent did the Enlightenment from 1715 to 1789 in France Correspond to the First Industrial Revolution in 1760 in Britain and how did Both of them Influence the world?

Teressa (Xinyu) Yuan

Leysin American School in Switzerland, Switzerland, 1854

ABSTRACT: This research paper is aiming to discover the relationship between the Enlightenment in France and the First Industrial Revolution in Britain. This is claimed in this paper that due to the time period of these two events, the Enlightenment idea first impacted and somehow incurred the First Industrial Revolution. After the Revolution was on track, it reversed to influence the late Enlightenment. Moreover, it became clearer that these two events not only affect each other, but also brought worldwide evolution phase by phase.

KEYWORDS: Religion, Philosophy, Economics, Natural Sciences, Politics, Challenge, Improvement.

Introduction:

This essay aims to explore the correspondence between the Enlightenment in France and the First Industrial Revolution in Britain, two events in European countries in 18th Century that deeply altered the world. During that period of time, these two campaigns improved the societies completely. I am curious about why these two vital revolutions did not occur in other countries, instead, these evolutionary ideas appeared specifically in these two countries. Thus, I am seeking to figure out the background causes of this phenomena.

Due to the medium familiar level to this topic, research for sources were achieved in advance. After analyzing the reliability and the validity of the resources, they will be used as references in this paper. At the end, evaluation will be formed and the conclusion will show the final answer of this research question: "To What extent did the Enlightenment from 1715 to 1789 in France Correspond to the First

Industrial Revolution in 1760 in Britain and how did Both of them Influence the world?"

Before all of these events that mentioned in this topic, in the 15th Century, Europeans were suffering under Medieval time which was referred as "Dark Ages" in the European History. For suppression of everything in those 10 decades, there was a start of idea revolution boom in those countries. The climax of the Renaissance became a strong proof that people were trying to rediscover the ancient style in every aspect of their world. The distinctions between these two events were that the previous one focused on the advances in literature, architecture, humanism, and a world economy, while the Enlightenment was associated with the scientific method, industrialization, rationality, astronomy, and calculus 1. But still with the pioneering ideas created in the Renaissance, Enlightenment, (French siècle des Lumières (literally "century of the Enlightened"), German Aufklärung), a European intellectual movement of the 17th and 18th centuries in which ideas concerning God, reason, nature, and humanity were synthesized into a worldview that gained wide assent in the West and that instigated revolutionary developments in art, philosophy, and politics occurred apparently 2. Since the openminded people started to think as knowers about existence of every concepts, brand new opinions and beliefs other than religious claims were established and formed into systems that kept promoting people to doubt and suspect more rather than blindly believe the god. Therefore, Enlightenment was brought out by several philosophers like Voltaire, Descartes and Rousseau who turned out to be the leader of this period. Although the centre of the Enlightenment was located in France, other European countries' dwellers all presented strong interest in having the similar events which brought a popularity of having this mental world reformation.

What's more, during the mid-Enlightenment time, the First Industrial Revolution started rapidly in Britain. With these proposed causes of the British industrialization, aggregating them into seven broad categories, i.e. (1) geography and natural resources, (2) demography, (3) agricultural progress, (4) demand-side factors, (5) trade and empire, (6) institutional and political factors, (7) science, technology, and human capital3, the revolution facilitated the development of Britain. It is clear that the most incredible contribution to the local society brought by the existence of the Industrial Revolution was the rise of the entrepreneur rate which improved the economy dramatically. Thus, other countries started to imitate the British to industrialize their own countries.

2 "Enlightenment & Renaissance." Slader. Accessed September 28, 2020. https://www.slader.com/discussion/question/what-was-the-difference-between-the-enlightenment-and-the-renaissance/.

¹ Duignan, Brian. "Enlightenment." October 9, 2020, 1. Accessed September 28, 2020. https://www.britannica.com/event/Enlightenment-European-history.

³ Neuss, Leif Van. "Why Did the Industrial Revolution Start in Britain?" SSRN Electronic Journal, 2015. doi:10.2139/ssrn.2696076.

These two events both built a solid foundation that supported the crucial development of the European societies.

Hypothesis:

According to all the content above and my own rational thinking, I assume that the Enlightenment from 1715 to 1789 in France Correspond to the First Industrial Revolution in 1760 in Britain to a far distance and both of them influenced the world significantly.

The Enlightenment Incurred the First Industrial Revolution:



Nicolaus Copernicus

The Enlightenment, should be considered as one of the most Prompting Causes of the First Industrial Revolution. Since Europe used to be a continent that owned a system which combined politics and religion together, the cathedrals held most of the power, especially the Archbishops of Cardinals who referred as Popes. The ordinary ideas which could not be obeyed were all structured by these people. Those beliefs insisted everything was created by the god (or gods). In Peter Gay's paper, it is said that: "Enlightenment was a move that combatting and overcoming religion but not by fully against it. In 18th Century, people even started to criticize the Bible

and the number of the population was kept surging4. From this quote, we can see that people were under "suppression" for too long time. They were seeking for a enough open and generous community that would accept the existence of the multiple ideas, even though they were against each other. Natural Sciences was the most developed aspect during this period due to their opposite view on how was this world initially structured and functioned.

For instance, Nicolaus Copernicus declared his theory with Copernican heliocentrism, a model demonstrated that sun is the centre of the universe5 which challenged the second-century astronomer Ptolemy. In his theory, the sun and planets orbited the Earth, which was regarded as the orthodox model across the Christian world6. Since Copernicus's theory might threaten the dominant place of religion in the hierarchy of the society system, his book was published after his death. His successor Galileo was imprisoned for proving Copernicus's "evil" theory was right7.

However, during the Enlightenment, people had different goals than before. The aim to survive under the higher estates were replaced by challenging the ancient solid thinking. With this background, inventions were formed by the reformers, similar to initiative ideas were constructed by the philosophers. Due to this, the societies began to evolve in all aspects. Among all, economics was one of the most outstanding one. Along with this, natural sciences were vastly flourished with unique theories and thoughts. It was the part that facilitated and inspired the Industrial Revolution.

The First Industrial Revolution Inspired the Late Enlightenment:

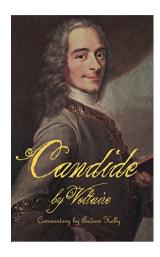
⁴ Gay, Peter. The Enlightenment: An Interpretation. Vol. 1. New York: London, 1977.

⁵ Westman, Robert S. "Nicolaus Copernicus." Encyclopædia Britannica. May 20, 2020. Accessed September 28, 2020.

https://www.britannica.com/biography/Nicolaus-Copernicus.

⁶ GETTY, KRIVINIS, BRIDGEMAN ACI, ROSSHELEN GETTY, MARY EVANS, and MACIEKL GETTY. "Copernicus's Revolutionary Ideas Reorganized the Heavens." How Copernicus Put the Sun at the Center of the Cosmos. June 11, 2019. Accessed September 28, 2020. https://www.nationalgeographic.com/history/magazine/2019/03-04/astronomytheories-nicolaus-copernicus/.

^{7 &}quot;Galileo Is Accused of Heresy." History.com. November 13, 2009. Accessed September 28, 2020. https://www.history.com/this-day-in-history/galileo-is-accused-of-heresy.





Candide by Voltaire

Mary Wollstonecraft

Industrial Revolution, in modern history, the process of change from an agrarian and handicraft economy to one dominated by industry and machine manufacturing 8. This revolution technically made alternative influence to the whole world. It officially started in the second half of the 18th Century with the invention of the separate condenser for the steam engine and the water frame as a representative symbol. As I mentioned in the above content, it is clear that "in turn, the very fact Britain had reached a point where it was fertile ground for the revolution is part chance and part cultural development"9. During that period of time, massive changes occurred in Britain which benefit the country in several aspects, for instance military, navy forces, and especially economics.

Since the living standard was rising, people finally had budget to support their interests. This turned out to be the reason why the Enlightenment was latter more popular. People who did not need to worry about their survival maintenance then started to focus more on the satisfactory mentally. They put expense on supporting the professional people in order to contribute them for further research and exploration. This encouraged a huge group of artists and scientists to participate in the cultivation.

9 McFadden, Christopher. "The Industrial Revolution: What Was So Special About Britain?" Interesting Engineering. April 25, 2019. Accessed September 29, 2020. https://interestingengineering.com/why-did-the-industrial-revolution-start-in-britain.

^{8 &}quot;Industrial Revolution." Encyclopædia Britannica. September 10, 2020. Accessed September 29, 2020. https://www.britannica.com/event/Industrial-Revolution.

As Voltaire wrote in his book Candide: "Il faut cultiver notre jardin (we must take care of our garden) 10, these people truly followed their philosophes(the contemporary saying of philosophers in the Enlightenment) who were holding a torch in the endless darkness(this is a metaphor used to separate philosophes from others in Dumarsais's paper)11."

Thus, during those years, it was incredible that various ideas, theories and beliefs had emerged due to the openness of the both more generous society. Faiths of variety of religions were not the dominant faith of the whole society any more, instead, bibles were substituted by the philosophe literature system. Candide was considered to be a symbolic example due to its topic and content. The setting was a huge earthquake occurred in Lisbon, Portugal in 1755 when a grand religious event was going on which led the concern of the reason why God did this to his believers 12. This exhibited the confusion people had in the Enlightenment and this movement was seen as a complicated one with tensions between the followers of distinct ideas.

Likewise, the huge changes in equality for "weaker" human groups were also incurred by the Enlightenment. Racial Sciences and Gender Distinctions were the focus topics, which used to provide old prejudices and discriminations, were then supported by the society and the influence was spread wider latter on. For instance, the first feminist Mary Wollstonecraft, a British writer, was born in the Enlightenment.

she published her most famous work, A Vindication of the Rights of Woman. In the work, she states that society breeds "gentle domestic brutes" and that a confined existence makes women frustrated and transforms them into tyrants over their children and servants. The key, she purports, is educational reform, giving women access to the same educational opportunities as men13.

All of these influenced the world in a long-term period which also built the foundation for the following events like the French Revolution.

Analysis of the Correspondence between Two Campaigns:

¹⁰ Voltaire. Candide. Vol. 1. Paris: Cramer, 1759.

¹¹ Du Marsais, César Chesneau. "Philosopher." Philosopher. 1765. Accessed September 29, 2020. http://hdl.handle.net/2027/spo.did2222.0000.001.

¹² Voltaire. Candide. Vol. 1. Paris: Cramer, 1759.

^{13 &}quot;Mary Wollstonecraft." Biography.com. May 11, 2020. Accessed October 01, 2020. https://www.biography.com/scholar/mary-wollstonecraft.



Cave Analogy from Plato

By elaborating the background of the two movements, it needs to be claimed that the two events were affecting and prompting each other. During that period of time, it was incredible that society systems developed in approximately all categories of Areas of Knowledge. There was no doubt that the Religious Knowledge System, Economics Structures, Mathematics, Natural Sciences and Human Sciences had revolutionary alternations. However, Art, Indigenous Knowledge System and the definition of Ethics all changed remotely. For Art, the dominant art style Rococo was replaced Neoclassicism which was the revival of classic style (same idea as the Renaissance) 14. For Indigenous Knowledge, it was obviously changed with the society reformation. Inherited traditions were abandoned if they were only formed in imaginations. People now were on the phase of steeping out of the cave that they had stayed for hundreds and thousands (according to Plato's theory, people had been stayed in a cave for years and only got the information from the shadow on the walls. People who went out of the cave were philosophes that spread how the true world was to others) 15.

Viewing through the European history, these two campaigns were the connection between Age of Discovery (15th Century to 17th Century) and the Capitalist Period (19th Century). It was these two events that made the European countries stronger

^{14 &}quot;Boundless Art History." Lumen. Accessed October 02, 2020. https://courses.lumenlearning.com/boundless-arthistory/chapter/the-enlightenment.

¹⁵ Plato. Allegory of the Cave. Scotts Valley, CA: Create Space Independent Publishing Platform, 2018.

than others and provided support of the spread of colonialism. In reverse, the colonies contributed raw materials as resources for the later Industrial Revolution.

Evaluation:

From the analysis of all above relations about the topic, it turns out to be the same as the hypothesis: The Enlightenment from 1715 to 1789 in France Correspond to the First Industrial Revolution in 1760 in Britain to a far distance and both of them influenced the world significantly. The Enlightenment shall be seen as the start of this incredible chain reaction since it liberated people's mind from the shackles. This was then connected to the desire of evolving the society industrially which turned out to be the Industrial Revolution. It repeated by interacting with each other back and forth which constructed the dominating powers of the later world.

Conclusion:

All in all, the Enlightenment and the Industrial Revolution were corresponded to each other and they were contributing and effective to the world profoundly. It is quite valid throughout the evaluation and the conclusion.

References:

- "Boundless Art History." Lumen. Accessed October 02, 2020. https://courses.lumenlearning.com/boundless-arthistory/chapter/the-enlightenment.
- [2] Du Marsais, César Chesneau. "Philosopher." Philosopher. 1765. Accessed September 29, 2020. http://hdl.handle.net/2027/spo.did2222.0000.001.
- [3] Duignan, Brian. "Enlightenment." October 9, 2020, 1. Accessed September 28, 2020. https://www.britannica.com/event/Enlightenment-European-history.
- [4] "Enlightenment & Renaissance." Slader. Accessed September 28, 2020. https://www.slader.com/discussion/question/what-was-the-difference-between-the-enlightenment-and-the-renaissance/.
- [5] "Galileo Is Accused of Heresy." History.com. November 13, 2009. Accessed September 28, 2020. https://www.history.com/this-day-in-history/galileo-is-accused-of-heresy.
- [6] Gay, Peter. The Enlightenment: An Interpretation. Vol. 1. New York: London, 1977.
- [7] GETTY, KRIVINIS, BRIDGEMAN ACI, ROSSHELEN GETTY, MARY EVANS, and MACIEKL GETTY. "Copernicus's Revolutionary Ideas Reorganized the Heavens." How Copernicus Put the Sun at the Center of the Cosmos. June 11, 2019. Accessed September 28, 2020. https://www.nationalgeographic.com/history/magazine/2019/03-04/astronomytheories-nicolaus-copernicus/.

- [8] "Industrial Revolution." Encyclopædia Britannica. September 10, 2020. Accessed September 29, 2020. https://www.britannica.com/event/Industrial-Revolution.
- [9] "Mary Wollstonecraft." Biography.com. May 11, 2020. Accessed October 01, 2020. https://www.biography.com/scholar/mary-wollstonecraft.
- [10] McFadden, Christopher. "The Industrial Revolution: What Was So Special About Britain?" Interesting Engineering. April 25, 2019. Accessed September 29, 2020. https://interestingengineering.com/why-did-the-industrial-revolution-startin-britain.
- [11] Neuss, Leif Van. "Why Did the Industrial Revolution Start in Britain?" SSRN Electronic Journal, 2015. doi:10.2139/ssrn.2696076.
- [12] Plato. Allegory of the Cave. Scotts Valley, CA: Create Space Independent Publishing Platform, 2018.
- [13] Voltaire. Candide. Vol. 1. Paris: Cramer, 1759.
- [14] Westman, Robert S. "Nicolaus Copernicus." Encyclopædia Britannica. May 20, 2020. Accessed September 28, 2020. https://www.britannica.com/biography/Nicolaus-Copernicus.