

Reading Quiz 0.2 part II, and 1.1 - INTD290

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How to Submit this Assignment

Once you answer the questions, take a picture of your work and convert it to a PDF. Submit the PDF to the assignment link on Moodle.

Nueva Espana

1. Discuss some examples of the book trade between France, Spain, and New Spain. What is the implication for the growth of Enlightenment knowledge in New Spain?

The monarchies feared that with the Enlightenment movement, that its people would revolt, similar to what happened in France with the French Revolution; so, the supply of books, scientific instruments, and even professors was delayed to New Spain. However, since New Spain had an unquenchable thirst for the acquisition of new knowledge, the local communities supported the efforts in obtaining more books by translating them into Spanish. Once this occurred, New Spain was able to take their findings and publish their own books and scientific papers applying the information they were learning some of which include: *Principios de física y matemática experimental* (Principles of Physics and Experimental Mathematics, 1802), *Elementa recentioris philosophiae* (Elements of Modern Philosophy 1774), and *Physica particularis* (Special Physics 1765).

The knowledge gained from the Enlightenment in New Spain allowed its society to transform not only from a scientific standpoint but also a social one. This led to scientific practice in their daily lives and governed the way they thought. This acquisition of knowledge allowed them to create a social framework that did not have anything to do with the authoritarian and colonial political regime that had governed until then. Which inevitably allowed them to gain their independence from Spain.

Nueva Granada



Figure 1: A map of the Northern edge of South America and the Caribbean.

1. On Fig. 1, label the locations of the following cities:
 - Quito
 - Santa Fe (de Bogota)
 - Caracas

2. List the universities in each of the above cities. Which ones were founded with Enlightenment ideals in mind, and at which ones were taught concepts from Newtonian (as opposed Scholastic) physics?

In Quito, The Universidad Gregoriana and the Universidad Javeriana of Santa Fe de Bogotá were the first to promote the scientific spirit and taught Newtonian concepts. The Universidad de Caracas, however, did not allow the introduction of Copernicus's and Newton's theories.

Comparisons of Adoption of Scientific Revolution

1. What do the contrasted examples of Jose Ignacio Bartolache and Jose Celestino Mutis say about the acceptance of the Scientific Revolution in the different *virreinos*? Give examples of the accomplishments of each person, and give context for the acceptance of the work of each in their respective *virreinato*.

It shows that each *virreinato* had their own view on the Scientific Revolution. Mutis embraced it and went on and "presented sixteen theses to support the heliocentric system. What stands out is that he dedicated at least eleven to proving that these theories were not forbidden and that, on the contrary, teaching them was ordered in the new reforms proposed by Charles III. Therefore, "Reflexiones sobre el sistema tycónico" is a text in which the cognitive strategy for the defense of Copernican thought articulates theoretical and conceptual arguments within normative and juridical rules and makes a clear case for the feasibility of Mutis's theses."

2. Discuss the educational roles of the Jesuits and the Dominicans in Nueva Granada¹. When did the Jesuits leave Nueva Granadan education, and why? How did the Dominicans operate educational institutions as they asserted control over various universities?

The Jesuits left Nueva Granada in 1767 because they were banished for embracing the new teaching. The Jesuits and Dominicans disagreed regarding the implementations of scientific concepts and knowledge. The way the Dominicans went about controlling education is by monopolizing the universities with the help of the Crown. They did this so that they could promote the ideas they believed in and supported and with the Crown believing in the same ideals it made it easier for them.

3. Eventually, the Spanish Crown took control of education. How did this happen, and more importantly, why would the Crown wish to do this? Now turn your attention to the time before the Spanish Crown took over education. **This one is worth a bonus point.** *How did control of education grant political control? Why would the power to confer degrees give someone political power?*

The Spanish Crown had established royal patronage, meaning that they had enacted the right to have control over the education of the public. They wanted to take control of education because knowledge equated to power during this time. A degree higher than the high school level meant that a person had the ability to one day have political influence or standing in the country. In essence, having the power to give someone a degree meant that you could control and limit who had power. The Crown wanted to control who controlled that, and only sought to give that power to those that sided with the crown.

Advent of Newtonian Physics in Nueva Granada

1. Discuss the significance of the geodetic expedition of Charles de la Condamine in 1735. What was the goal? What were the cultural outcomes for Creole peoples, according to the writings of Alexander von Humboldt?

The significance of the expedition is, it proved the Copernican and Newtonian theories regarding the shape of the earth to be true. Humboldt wrote "the setting up of printing presses was prohibited in cities of forty to fifty thousand inhabitants; peaceful citizens, who retired to the countryside and secretly read the works of Montesquieu, Robertson, or Rousseau, were suspected of harboring revolutionary ideas." The fact that there seemed to be some truth to these revolutionary concepts, the church and the crown wanted to suppress this information and prevent it from getting to the public; which is why they prohibited the use of the printing press and the talk of such ideas.

2. Which Catholic religious order first taught Newtonian physics in Nueva Granada?

- Carmelites
- Dominicans
- Franciscans
- Jesuits

Did this order always teach Newtonian physics

No they didn't. They shifted from Cartesian philosophy to Newtonian take on physics.

[†]It might be helpful to know: Dominican universities were sometimes named *San Tomas*, after Saint Thomas Aquinas (not Saint Thomas the Apostle), because Saint Thomas Aquinas was a Dominican. *San Ignacio de Loyola* was the founder of the Jesuits, and some Jesuit universities are named *San Ignacio*.