

Social and Medical Conditions and Induced Social Conflicts and Discriminations in the First, Second, and Third Pandemics

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Introduction

From the moment the history of human beings was recorded, disease became an inseparable part in between. This essay aims to make a societal comparison between three dreadful pandemics in human history. The analysis focuses firstly on social construction and organization during three pandemics, including the economic and political system. To go through people's awareness and view on science, prevention and treatment of pandemics are also discussed. Finally, this essay compares social issues and discriminations against certain groups in different pandemics.

Dicussion

1. Social Conditions

1.1. Social Conditions in the Plague of Justinian (The First Pandemic)

1.1.1. Population Densities

The age of the first pandemic mainly refers to the plague of Justinian beginning in 542 CE which mainly influenced the Byzantine Empire and the surrounding era. Constantinople was a metropolis at that time with a population of more than half a million, or 140 people per acre. All of Constantinople's staple foods, including grain, were shipped from

the surrounding areas and stored in large warehouses. The capital's location along the Black and Aegean seas made it the perfect crossroads for trade routes from China, the Middle East, and North Africa. Such booming trade also introduced mouse species, *Rattus rattus*, from India, which would later be identified as the main carrier of flea nest plague (Eliason and Alex, 2020).

In contrast, the lifestyles in Samara and Armenia may have prevented the epidemic (Horgan, 2020). Compared to Constantinople's urban population, these populations were significantly more mobile and less congested. The Samara population seldom had agricultural practices and often occupied small settlements of large families. These communities managed shared herds, and horse tools found in their unique mounds show that these animals were highly valued. Since horses may have had some natural immunity to the disease, the chances of infection for citizens were minimized (Eliason and Alex, 2020).

1.1.2. Economy

The improper taxation and construction projects from the emperor failed to improve the consequences of the pandemic. Population decreased sharply in that period and this led to a shortage in farmers, which resulted in low productivity. However, the emperor still demanded construction projects of public works and church when the labor force was in shortage. As a result, the supply of grain was inadequate, the price of food and commodity soared and peasants' ability to pay tax revenues declined. Despite this, Justinian insisted on collecting high taxes as before, finally he overburdened the decimated population.

1.1.3 Authority and Wars

The disease was so widespread that no one was safe. Bodies littered the streets of the capital. As a result of the decreased population, the size of army shrank. The declining population also weakened the military might of the empire and gave the Lombards an

opportunity to invade northern Italy and fracture the Italian peninsula. Additionally, in the Roman provinces of North Africa and the Near East, the empire was unable to stem the encroachment of Arabs. However, the empire continued to start wars: Battling Ostrogoths for control over Italy; fighting Vandals and Berbers for control in North Africa; and fending off Franks, Slavs, Avars, and other barbarian tribes engaged in raids against the empire. Citizens suffered from all these military conflicts and the empire's defenses in the age of plague.

1.2. Social Conditions in the Black Death (The Second Pandemic)

1.2.1. Impact on Social System

Feudalism began to collapse because of the widespread death of serfs, who were most vulnerable due to their living conditions that brought them closer to each other on a daily level than those of the upper classes. As the plague continued, the population declined, and the labor force of serfs suddenly became an important and increasingly scarce asset. The fact that the owner could not feed himself, his family, or pay levies to the king or the church without his peasant labor and the loss of so many meant that survivors could now negotiate for wages and better treatment. The lives of members of the lowest classes had improved considerably because they could afford better living conditions and clothing, as well as luxury goods.

In addition, the need of farming to feed people would prove to be a serious challenge, as would the huge decline in demand for manufactured goods, as far fewer people bought manufactured goods (Cartwright, 2020). In agriculture specifically, those who could work could now ask for wages. The serfdom system, in which a worker paid rent and respect to a landlord and never moved away, was reaching the end. On the other hand, a more flexible, mobile and independent workforce was born.

1.2.2. Economy

Just as what happened during the First Pandemic, the lack of a working population led to a shortage in the supply of necessities in that the prices exploded. While the decreasing in population undermined the competitions of lands and resources. Peasants, therefore, were able to earn a higher welfare.

1.2.3. Question into Authority

The credibility and holiness of divine rights are questioned, and this incentivized people's awareness of civil rights humanitarian view. These factors finally laid the foundation for the Renaissance. In the age of the Second Pandemic, the Black Death swept Europe. People were extremely disappointed in the authorities because of their incapability to deal with death and disease. Thus, at the same time, the number of personal piety and charitable organizations flourished because the normal people were trying to do something to improve the current situation.

1.3. Social Conditions in the Third Pandemic in late 19th Century

1.3.1 International Intervention and Citizen Rights

The British intervened in the Indian plague with unprecedented brutality. People were forced into hospitals, bodies were searched without sensitivity, floors were torn up, houses were demolished, and streets and sewers were filled with disinfectants. The government enjoyed very limited legitimacy. The British were completely insensitive to the situation and feelings of the Indian people.

1.3.2. 1894 Hong Kong Plague

In 1894, Hong Kong was famous for the outbreak of the third pandemic from the late 19th century to the early 20th century. Residents in urban areas chose to remove to the countryside or escape to nearby territory in order to seek safety there.

At that time, the main preventive measures were setting up plague hospitals and deploying medical staff to treat and isolate plague patients; conducting house-to-house search operations, discovering and transferring plague patients, and cleaning and disinfecting infected houses and areas. However, they were opposed by people at that time. These measures bring inconvenience to the daily life of local people. In addition, the efficient treatment of patients' corpses when there are not enough people to transport or bury corpse -- using lime to bury many dead bodies together to avoid transmission -- conflicted with the native customs. As a result, many people in 1894 were opposed to the hospitals and deploying medical staff.

2. Prevention and Treatments

2.1. Prevention Methods and Treatments in the Plague of Justinian

Once affected, people had two courses of action: treatment by medical personnel or home remedies. The medical personnel are basically trained physicians. Many of them received four years of education at the world's first universities taught by trained practitioners, then they move on to the center for medical training. Thus, they have profound knowledge of natural sciences and medical treatment since they are well educated.

However, although they are very professional, most people of the common citizen class have no access to these physicians and often turned to home remedies instead, which often involves cold-water baths, powders "blessed" by saints, magic amulets & rings, and various drugs. When people failed to treat themselves, they turned to hospitals and were

subject to quarantine there. Those who survived were considered to have “good fortune, strong underlying health and an uncompromised immune system.”

In general, treatment for the plague was very limited. There was no known cure for the disease. And the doctors would have to guess what might cure this epidemic. They tried many attempted treatments such as vinegar and water or even telling the patients to carry flowers around with them all day. Other attempted treatments were bloodletting, changing diet, and witchcraft or charms. Doctors believed that creating a wound would allow the disease to leave the body. A mixture of tree resin, flowers and human faces should be applied to the open wound. Finally, other mixtures, powers and drinks were concocted to try to cure this disease. One mixture called for roasted newly egg shells, marigold flower petals, treacle, leaves, and warm ale. Patients were instructed to consume the drink every morning. This kind of treatment is somewhat superstitious as it sometimes turns to supernatural powers as a result of people's lack of understanding of the disease, and is thus usually not very effective.

2.2. Prevention Methods and Treatments in the Black Death

Regarding the fact that people during the second plague pandemic could recognize the sign of the plague but not the source of the plague, and people lacked of knowledge about public health and biology, there are two key words that could generalize the reaction of people during the second plague other than those so-called scientific medical methods: reducing exposure and religious practice. Though quarantine was immature at that moment, people had realized the importance of reducing exposure. Whether effective or not, there had been a strategy to ban the importation of certain goods like cloth, which affect the commercial intercourse. In the port of Ragusa, a law was established to require a 30-day isolation for ships arriving from other areas. Some other cities and countries also adopted this

method under the law of *quarantino* (40 days), which provided the base for the word “quarantine.” Though people had different reactions towards the plague, ranging from avoiding gathering to performing ceremonies, or even choosing to flee away, they avoided so-called “fellow-feeling.” In addition, as required, the number of mourners attending funerals decreased. The direct result was social distancing, both physical and mental. Religion also played an important role in deciding people’s reaction (Henderson, 2013). During the second plague pandemic, the pandemic was usually associated with “sin.” In this regard, large gatherings or confessions to beg for the forgiveness of the deity also became a cure for disease. For instance, the persecution of certain ethnicities and religious groups was viewed as a kind of treatment.

2.3. Prevention Methods and Treatments in the Third Pandemic

Huge leaps in advancement of prevention methods and treatments have taken place during the third pandemics. And the prevention methods have shown larger differences between different regions and have been closely related to the economic conditions and social awareness locally. The following are several representative examples of the prevention methods and treatment in the third pandemic:

Hospitals called “Hygeia” run by European staff were quickly established and the government led by Sir William Robinson took strong measures like condemning and sealing off many houses or imposing a penalty of \$25 for people who concealed the infection. However, for the Chinese community in Hong Kong who were panic of not only the pandemic but also the Western medicine, some of them went back to China, some of them regarded plague as a natural phenomenon and therefore limited the direction to search for solution, and some of them continued to through out the dead bodies to avoid detection. The

attitude towards pandemic appeared to show the discrepancy in public health between Western colonists and the community in Hong Kong.

India's Covid-19 legislation is no other than the 1897 plague emergency legislation, developed and deployed against the third pandemic. India, where the most casualties took place, implemented legislative measures to control the disease, and this legislation serves as a model for India's covid-19 legislation in the current day.

The chemical element of sulphur is used for preventative and therapeutic purposes has a history far beyond modernity. A 14th-century physician Paracelsus developed theories that provided chemical solutions to diseases, sulphur had a fixed place as a therapeutic substance. Based on these theories, French physician J. C. Gales developed a fumigation box for patients to be cured of the plague with sulphuric fumes in 1822. This practice was later integrated into ideas of purifying air, cleansing the environment and to act on non-specific pathogenic qualities, which are sometimes referred to as miasma (*MIT Press Reader*, 2020).

3. Impact of Plague on Social Conflict and Discrimination

First, plagues increase social conflicts by exerting overloaded economic burden on low-class people, especially farmers. During the first Plague, Justinian's Plague (541-542 CE), the agricultural sector was devastated. Fewer people meant fewer farmers who produced less grain, causing prices to soar and tax revenues to decline. The near-collapse of the economic system did not dissuade Justinian from demanding the same level of taxes from his decimated population. In his determination to recreate the former might of the Roman Empire, the emperor continued to wage wars against the Goths in Italy and the Vandals at Carthage lest his empire disintegrated. The emperor also remained committed to a series of public work and church construction projects in the capital, including the building of the

Hagia Sophia. This harsh condition leads to rebellions under the king's rule. A revolt led by the Moors in Africa came. Solomon was the administrator of Africa and killed in a skirmish, forcing Justinian to send a new general to quell the rebellion. In 543 the Plague arrived in Africa, and while the armies there eventually received reinforcements they never reached their previous strength. By 546 the situation was dire, and Justinian dispatched John Troglita with a very small group of reinforcements to deal with the uprising. By 548 the Byzantines had successfully defeated the Moors, but it was only due to the heavy influx of Berber mercenaries.

Plague and rumors also manifest a certain type of xenophobia in the Black Death that the already discriminated group of Jewish people were more severely despised due to rumors of them poisoning the wells. However, such discrimination to Jewish people were not limited to Black Death but were prevalent whenever the economics was in a terrible condition before World War II.

Plagues may increase social conflict in another way. When the government cannot undertake domestic economic depression, it may divert the public view by creating foreign conflicts like war or cold war. Or, to solve local economic difficulties caused by plagues, they may gain from treaties after foreign conquest.

For example, the 1857 Opium war in China gives a detailed implication. While *Yersinia pestis*, the origin of the third Plague, spread to Europe and Australia through Opium trade around 1857, Britain invaded the Qing Dynasty and won 20 million silver notes from the Qing government (Echenberg, 2002 & Theilmann and Cate, 2007). However, after the 1894 discovery that maritime trade could accelerate Plague spreading by carrying rats, Britain did not slow down the pace of Opium business in Southern Asian. Rather, Britain's exportation of opium to China almost doubled during the time between 1857 to 1895. Though

industrialization majorly contributes to British commercial expansion, the negative impact of plagues also gives a reason for Britain to involve in more foreign conflicts and maritime trade (Bramanti, B., Zedda, N., Rinaldo, N. et al., 2018).

Plague may decrease social conflict, as well. Plague increases soldier mortality, which could severely curtail the military force of one side or both sides of a military event, which could eventually accelerate the ending of a war.

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For instance, since the beginning of the third Plague in 1772, Li-zi Cheng Uprising held by farmers has been quenched by this pestilence to a great extent. In the end stage of the Ming dynasty, famine, pestilence and war coexist in mainland China. Bad weather conditions led to an agriculture yield below average. While people were starving, mice were starving as well. Lack of food weakened the immune system of mice, exacerbating the contract of Plague among mice, which contracted farmers as well. When the uprising farmers entered Northeast China to fight Manchurians, their military force shrunk severely and lost more than half of its soldiers. From the quote of the farmers in the North China in the historical documents, “the uprising farmers spread pestilence everywhere they pass.” Their failure to conquer Manchurians is mostly caused by the pestilence, which undermines their military force and morale. Otherwise, the war will last long after their Northeast journey.

A severe plague could also eliminate conflicts by uniting the public to fight the disease, their common enemy, achieving temporary harmony. For example, the third Plague broke out in Sydney, Australian in 1900, while Australia became united and independent in 1901. Before the Plague, economic depression and strikes harassed the whole region,

including the bitter and prolonged 1890 Australian maritime dispute and the 1891 and 1894 shearers' strikes. Besides standing out of Australian Labor Party in 1899, Plague became an influential reason for the foundation of Australia in 1901.

Mortality discrimination happens in the Justinian's Plague, which was characterized by a prevalence of females burials. In later plagues males are more susceptible than females, leaving the first Plague an exception. This shows the healthy condition of females was low due to lack of care and discriminative treatment in the ancient Byzantine Empire.

Conclusions and Expectations

As the process of globalization proceeds, pandemic has become increasingly impactful for human beings. Fortunately, science and technology progressed as well, providing better prevention and treatment methods. Though the power of people's fear and ignorance in front of the pandemic could still undermine scientific and rational actions to deal with the pandemic, the crowd were becoming more objective and aware of their own situation and responsibility as civilization developed. The governmental systems were also revised in regions after pandemics that revealed people's seeking for civil rights and autonomy. Understanding between people with different backgrounds is still one of the most essential ideas. Hard to enforce as the idea is, to encourage the idea, the global institutions responsible for naming the epidemics and the media advocating for mutual respect and viewing through different perspectives still play an indispensable role.

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