

Pandemic Fear and Literature: Observations from Jack London's *The Scarlet Plague*

[Announcer] This program is presented by the Centers for Disease Control and Prevention

The Scarlet Plague, originally published by Jack London in 1912, was one of the first examples of a post-apocalyptic fiction novel in modern literature. Set in a ravaged and wild America, the story takes place in 2073, sixty years after the spread of the Red Death, an uncontrollable epidemic that depopulated and nearly destroyed the world of 2013. One of the few survivors, James Howard Smith, alias "Granser," tells his incredulous and near-savage grandsons how the pandemic spread in the world and about the reactions of the people to contagion and death. Even though it was published more than a century ago, *The Scarlet Plague* feels contemporary because it allows modern readers to reflect on the worldwide fear of pandemics, a fear that remains very much alive.

By exploring the motif of the plague, a consistent and well-spread theme in literature, London's novel is part of a long literary tradition, inviting the reader to reflect on the ancestral fear of humans toward infectious diseases. In the ancient world, plague and pestilence were rather frequent calamities, and ordinary people were likely to have witnessed or heard vivid and scary reports about their terrible ravages. When plague spread, no medicine could help, and no one could stop it from striking; the only way to escape was to avoid contact with infected people and contaminated objects. The immense fright was also fueled by a belief in the supernatural origin of pandemics, which were often believed to be provoked by offenses against divinities.

In contrast, the Greek historian Thucydides, in his *History of the Peloponnesian War*, and the Latin poet Lucretius, in his *De Rerum Natura*, refuted a supernatural origin of the disease and focused their descriptions on the uncontrolled fear of contagion among the public. According to these authors, plague did not discriminate between the good and the evil but brought about the loss of all social conventions and a rise in selfishness and avarice.

Later medieval writings, such as *The Decameron* by Giovanni Boccaccio and *The Canterbury Tales* by Geoffrey Chaucer, emphasized human behavior: the fear of contagion increased vices such as avarice, greed, and corruption, which paradoxically led to infection and thus to both moral and physical death. Human reactions to the plague are also the central themes of historical titles such as *A Journal of the Plague Year* by Daniel Defoe, a long, detailed narrative of events, anecdotes, and statistics regarding the Great Plague of London of 1665. In a similar manner, *The Betrothed* and *History of Infamy*, both written by Italian novelist Alessandro Manzoni, were extraordinary descriptions of the plague that struck Milan around 1630.

In English-language literature, *The Last Man* by English novelist Mary Shelley was one of the first apocalyptic novels, telling of a future world that had been ravaged by a plague; a few people appear to be immune and avoid contact with the others. The concept of immunization in this book demonstrates that the author, most famous for the novel *Frankenstein*, had a deep understanding of contemporaneous theories about the nature of contagion. In 1842, the American poet and novelist Edgar Allan Poe published *The Masque of the Red Death*, a short story unique in the literary tradition of the plague by focusing only on the metaphorical element of the theme. Through the personification of the plague, represented by a mysterious figure disguised as a Red

Death victim, the author meditates on the inevitability of death; the issue is not that people die from the plague, but that people are plagued by death.

Jack London was a US writer and journalist and author of classic novels including *The Call of the Wild* and *White Fang*. He was also an active member of the Socialist Party of America, and his works often contained explicit critiques against capitalism and war. Numerous stories London wrote today would be classified as science fiction, and some had pandemics and infectious diseases as subjects. *The Unparalleled Invasion* described a biological warfare campaign launched from the United States and the other Western countries to arrest the uncontrolled growth of China's population and protect European colonies in Asia from Chinese immigration. In *The Scarlet Plague*, London investigated many traditional issues of the literary theme of plague, ranging from a reflection on morality and justice to the contagion and clinical features of the disease. In particular, the author focused his attention on behavioral responses to a pandemic, showing the emergence of fear, irrationality, and selfishness in a previously civilized and modern society. This novel differed greatly from earlier writings related to plague because it reflected deeply the contemporary scientific discoveries of pathogens fostered by scientists such as Louis Pasteur and Robert Koch. By the early 20th century, epidemics were no longer considered divine punishments or supernatural events; 19th century bacteriologists had demonstrated that they are caused by germs that infect humans, and epidemiologists and public health experts had shed light on the mechanisms of disease transmission, including suggestions of general preventive measures to limit pandemics. Despite these scientific developments, however, in London's time, the general public's fear of the invisible world of microorganisms was still high.

In the novel, at the beginning of the epidemic of Scarlet Death, the people appeared not to be alarmed. Public trust in science was high in the 21st century society described by London. However, the people were soon frightened by "the astonishing quickness with which this germ destroyed human beings, and [by] the fact that it inevitably killed any human body it entered." Through details of the course of the illness, London made the plague more realistic and even more frightening.

London wrote of the rapid decomposition of corpses, which immediately released billions of germs, accelerating the spread of the disease and causing problems for the scientists who were not able to quickly find a specific treatment. By the time a serum against the plague was discovered, it was too late to stop the epidemic. Medicine and scientific progress were defeated by plague, as testified by the heroic death of bacteriologists who "were killed in their laboratories even as they studied the germ of the Scarlet Death".

The defeat of the science and medicine in which the people had placed trust generated fear in the population. London gave detailed insight into the human reactions to the spread of the disease.

There was no escape. Germs were spreading, fast and uncontrolled. Nothing could stop it, and the world was in a state of sheer panic never experienced before. People started to behave unreasonably. The population reacted to the outbreak of the plague in 2 ways: most tried in vain to isolate themselves and fled to avoid the contagion, whereas a minority, mainly rioters, began drinking, robbing, and sometimes even killing.

As the human race in London's world was dying, the earth was being devastated by fires and conflagrations. The end of the world is how the pandemic was perceived. Not only did the people fear their own death but they also had the terrible feeling of being at the end of the world: the cities were being destroyed by fire; the people were fleeing away in hysteria. This immense panic grew even more frightening and unprecedented because of the stop in communication with the rest of the world, a hopeless sign of death.

The brutality of the plague London presents is greater than that presented in previous works. The apocalyptic scenario illustrates a common fear of epidemics. In London's novel—as today—scientists were aware of the risk of uncontrolled pandemics. London's novel foresaw the first and most severe influenza pandemic in history, the Spanish influenza of 1918–1920, which began its spread only 6 years after the publication of *The Scarlet Plague* and caused the death of 20 million people worldwide. In the novel, as in reality, human reactions to plague can vary greatly, but still all share a terrible fear, the fear of death—both as the end of one's life and as the end of civilization.

As London shows in his novel, pandemics can bring forth deeply rooted fears and modify human behavior greatly. He used the plague theme to criticize contemporary social structure: the destruction that follows the plague is both to be welcomed and despised. Indeed, the pandemic breaks the class barriers, but it also leads to the ruin of civilization. According to London's socialist values, only human brotherhood enables society to survive. Despite the political views of the author, the pandemic issue would have appealed to London readers; His American audience had recently experienced the San Francisco plague of 1900 to 1904, an epidemic of bubonic plague centered on San Francisco's Chinatown. During this epidemic, the initial denial and obstructionism of authorities in California, who wanted to prevent the loss of revenue from trade stopped by quarantine, were highly criticized by media and public opinion.

Today, despite the development of antimicrobial drugs, infectious diseases and germs continue to generate fear, as recently demonstrated by the worldwide epidemics of flu H1N1 in 2009, avian flu H5N1 in 2005 and 6, and severe acute respiratory syndrome, SARS in 2003, as well as the potential for attacks with bioterrorism agents such as anthrax or smallpox. A recent study in Switzerland analyzed the lay perceptions of collectives implicated in the 2009 H1N1 outbreak and found that physicians and researchers were considered "heroes" of the pandemic. As in London's times, the study illustrated that the public placed trust mainly in scientists rather than in political authorities and states, which were thought to be partly ineffective. However, recent outbreaks have demonstrated that even the scientific community may make mistakes in managing infectious disease, and during a pandemic, emotion and greed may affect not only the population but also scientific authorities and hospital workers. For example, during the SARS epidemic, many heroic deeds were performed by scientists and health care workers, especially when SARS was an unknown microbiological enemy. Devotion to professional duty resulted in a high level of camaraderie, cohesion, and encouragement in hospitals in Asia, as among the plague survivors in London's novel. However, the haunting fear of acquiring and spreading the disease to families, friends, and colleagues may also lead to understandable selfishness and cowardice in health providers.

Finally, London's work inspires reflection on the role of media during pandemics. In London's novel, newspapers, wires, and phone calls were the only tools for obtaining information on epidemic spread. Today, the main sources of information on pandemics are widely available and

include the mass media, such as television and radio, and print media such as magazines and newspapers, and the Internet. In London's novel, the role of media seems to be positive but in modern times, the media are generally accused of exaggerating the risks of an epidemic and contributing to public misunderstanding of public health research evidence. Media reporting can sometimes appear to lower trust in scientific evidence, guiding public fear and spreading widely and almost instantaneously false information and exaggerated panic in public opinion. Media coverage can directly affect public risk perceptions, and recent studies have shown that media-triggered public concern may affect health-related personal measures taken during pandemics. International scientific literature has shown that, in more recent epidemics, media coverage may have had a positive influence on disease perception and, in particular, on vaccination campaigns.

Even though it was published a century ago, *The Scarlet Plague* presents the same concerns we face today, as demonstrated by the subsequent great success of this novel and the continuing literary theme of plague.

I'm Sarah Gregory, for *Emerging Infectious Diseases*, and I've been reading an abridged version of Another Dimension essay **Pandemic Fear and Literature: Observations from Jack London's *The Scarlet Plague***. You can read the entire October 2014 essay online at cdc.gov/eid.

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