

A Guide to Presenting Indigenous Content in the Modern Education Classroom in Social Science and Human History

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Abstract: This paper critically discusses the place of exotic disease theory in relation to Indigenous depopulation and epistemology in the pedagogy of western education. The author suggests there are significant concerns about exotic disease theory which could manifest in less than satisfactory teaching of Indigenous content, particularly when the educator is explaining Indigenous depopulation. Another important consideration is the potential defamatory nature of exotic disease theory, and its derogative portrayal of Indigenous people as immune deficient. It is suggested that the use of exotic disease theory in teaching pedagogy is in need of ongoing awareness and refinement. The paper targets educators, researchers and particularly historians who work in the area of Indigenous Education and seeks to open discussion in order to improve content in teaching delivery.

Key words: pedagogy, indigenous history, health education

1. Introduction

The post-colonization theory that the rapid depopulation of Indigenous people was largely caused by exotic disease which Indigenous people had no immunity resonates through most narratives of the early years of colonization. The question of whether this narrative is based on sound medical evidence or is better placed in the realm of myth is the subject of this paper. The underlying assumption in this discussion is that western colonial ethnography and history has created a false sense of medical history concerning Indigenous depopulation which has filtered through into teaching delivery. This discussion includes a definition of exotic disease theory, a brief literature review, limitations of exotic disease theory, recommendations for improving teaching pedagogy and a conclusion.

2. What is Exotic Disease Theory?

Exotic disease is a theory that proposes Europeans and others unintentionally introduced diseases such as smallpox, measles, influenza, typhoid and syphilis with a result that large numbers of Indigenous people died because they had no immunity. Europeans did not succumb at the same rates because they had prior exposure which resulted in acquired immunity. The post-colonization theory that the rapid depopulation of Indigenous people was largely caused by exotic disease which Indigenous people had no immunity is arguably a cliché in many post colonial histories which give accounts of Indigenous depopulation in the early years of colonization.

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3. Literature Review

This brief literature serves to highlight the generally accepted theme in western historiography that exotic disease had a critical role in Indigenous depopulation in many parts of the world affected by global imperialism. In a general post colonialism sweep of historical literature across many New World countries, including the United States, New Zealand, South America and Australia a rationale of exotic diseases as a legitimate causal factor in Indigenous depopulation is widespread.

According to some researchers in Australia exotic disease theory could be perceived as a means of reducing colonising guilt. Australian researcher Alison Palmer alludes to this idea when she writes:

Colonized peoples were subjected to near annihilation by guns or diseases in a large number of instances — in the Americas, in the Caribbean, in Australia. In countries where exotic disease is perceived as a major cause of depopulation of Indigenous societies imperial powers are then excused of malicious intent (Palmer, 2000, p. 191).

So from this perspective Indigenous depopulation is reduced to a simplistic bullets verses germs with a view that exotic disease could be merely an alibi for violent colonial militancy.

In the United States Jared Diamond book title adopts this bullets verses germs theory to explain the decline of Native American populations. In his Pulitzer Prize-winning work *Guns, Germs, and Steel* the author portrays a common view of exotic disease theory when he states, “The main killers were Old World germs to which Indians had never been exposed, and against which they therefore had neither immune nor genetic resistance.” (Diamond, 1997, pp. 210–213)

In Australia a similar explanation is provided to explain Indigenous depopulation of Aboriginal Australians in *the Encyclopaedia of Aboriginal Australia* (1994) which claims the decline was a result of colonial aggression and disease. David Horton writes, “After 1788 the population was diminished by deaths in battle, killings by settlers to rid pastoral and agricultural lands of competing occupants or in retaliation for Aboriginal raids, and introduced diseases such as smallpox, measles and influenza.” (Horton, 1994, pp. 456–457)

In South America the case of the Spanish Conquistador, explorer and soldier Hernando Cortez provides another example of the bullets verses germs approach. Cortez achieved legendary status in European history as the man who led the Spanish forces which conquered the Indigenous Aztec populations of Mexico. After being repelled by the Aztec armies and experiencing major losses Cortez reinforced his forces and returned to Tenochtitlan in 1521, where he conquered the Aztec city in a bloody military conflict which endured for three months. From this battle the Spanish formed a new settlement, Mexico City, which became the centre of Spanish control over the region. It is claimed by contemporary historians that despite reaping great wealth and “inflicting great cruelty on the indigenous population...Western diseases such as smallpox also caused huge fatalities.” (BBC, 2013)

In New Zealand researcher Te Kani Kingi suggests that the social chaos caused by violent colonial conflict as well as “introduced diseases in particular had a dramatic effect on Māori. Isolation from other parts of the world, allowed a unique culture to develop and flourish, but it also made Māori susceptible to many of the diseases which had ravaged other parts of the world. The population was unprepared, biologically and socially, the effects therefore were often quite devastating.” (Kingi, 2005, p. 6)

According to a United States researcher, David S. Jones, “Such assertions, which apply the intuitive appeal of natural selection to the demographic history of the Americas, dominate academic and popular discussions of

depopulation.” Jones attributed the popularity of this exotic disease theory to the influence of Alfred Crosby and William McNeill whose “virgin soil epidemics model and “Discussions of the epidemiological vulnerability of American Indians “not only had a profound effect on the American Academy but also extended throughout the world.” (Jones, October, 2003)

Jones writes “Even as Crosby’s model of virgin soil epidemics remains a central theme of the historiography of the Americas, it has been misunderstood and misrepresented.” Crosby himself downplayed his theory of immunology insisting that factors such as colonial violence and imposed living standards need to be carefully considered and taken into account when explaining the depopulation of North American Indians. Jones noted:

Crosby actually down played the “genetic weakness hypothesis” and instead emphasized the many environmental factors that might have contributed to American Indian susceptibility to Old World diseases, including lack of childhood exposure, malnutrition, and the social chaos generated by European colonization. Subsequent historians, however, have often reduced the complexity of Crosby’s model to vague claims that American Indians had “no immunity” to the new epidemics. (Jones, October, 2003)

Ironically it is science, and not history, which is at the basis of exotic disease theory and immunity. The belief that a human being without exposure to a virus or bacteria is more susceptible to that disease than a human being with prior exposure is based on Eurocentric scientific theory (Oxford, 2007, pp. 359–361). Such a theory adds enormous strength to claims made by historians who lack supporting medical evidence. The popular theory is used within the colonial narrative to explain the rapid depopulation of Indigenous populations in the face of European incursions into their country. While there is a substance of truth to exotic disease theory and some Indigenous peoples did indeed die from exposure to introduced diseases, it is the primacy of exotic disease theory over the alternative proposition of Indigenous population decline which is of central interest in this discussion.

The scientific rationale behind exotic theory is not being questioned here. It is an accepted and proven scientific theory that human beings acquire immunity to viral and bacterial pathogens through exposure. What historians have done with exotic disease theory is another matter. It is argued that the frailty of exotic disease theory is based on the inept methodology used in historical analysis and interpretation which has resulted in the construction of beliefs that are not based on sound medical evidence.

4. Factors outside the Paradigm of Exotic Disease Theory

The following section identifies significant factors which influenced Indigenous depopulation and have no direct association with innate or acquired immunity, including militant conflict, dispossession, labor exploitation, alcoholism, malnutrition, dietary deficiencies caused by the introduction of new foods such as sugar and flour, psychological trauma, cultural disintegration and miscegenation have no direct link with acquired or natural immunity in the context of exotic disease theory. Yet they are all significant factors in Indigenous depopulation.

4.1 Inter Tribal Warfare

The introduction of the gun had a profound impact on Indigenous depopulation. According to New History Online (2013), “War changed the face of New Zealand in the 19th century. Tens of thousands of Maori died in the intertribal Musket Wars of the 1810s, 1820s and 1830s.” (NZ Online, 2013)

4.2 Colonial Warfare

In his controversial book *Frontier*, Australian historian Henry Reynolds stated that at least 20,000 Aboriginal People were killed in “frontier skirmishing” (Reynolds, 1987, p. 53). It has been estimated that 3,000 Maoris died in violent clashes with British colonist between 1840 and 1870 (NZ Online, 2013). It is estimated that between 1775 and 1890 about 38,000 to 53,000 Native Americans were killed in frontier conflict with colonists (US Census, 1894).

4.3 Labour Exploitation

American historian Charles C. Mann estimates that Native American slavery had a profound impact on Indigenous depopulation. He writes, “Native people died in ghastly numbers across the entire South-east. Struck doubly by disease and slave raids, the Chickasaw lost almost half their population between 1685 and 1715.” (Mann, 2011, p. 129). In Australia historian Peter Read estimated between 1910 and 1970 around 50,000 Aboriginal children were removed into custodial or foster care where they often used as domestic servants or farm laborers. This was a result of government policies and these children Read coined “The Stolen Generation”. (Read, 2013)

4.4 Starvation and Malnutrition

The Oxford Companion to Australian History (1999) states population declines in Aboriginal society were principally caused by European disease, violence and malnutrition. It states, “Diseases endemic in Europe, such as typhoid and influenza, became the major causes of morbidity and death. Massacres and malnutrition also accounted for a very substantial reduction in the initial population.” So according to this work “massacres and malnutrition” were the “initial” cause of depopulation, then came “typhoid and influenza” (Davison, 1999, p. 14).

In *Aboriginal Australians* (1982) historian Richard Broome suggests European introduced diseases were the principal cause of the decline of traditional Aboriginal populations, “Overall disease, malnutrition and alcohol were the greatest killers, accounting for possibly two-thirds of deaths, these were then followed by white violence...”. Colonial violence is diminished as a secondary factor compared to disease. It is also implied that violence followed rather than preceded disease (Broome, 1982, p. 58).

4.5 Miscegenation

A glaring blind spot in western historiography concerns a lack of attention given to miscegenation and its underrated impact as a significant factor in Indigenous depopulation. Robert Dawson, a colonist in Australia in the 1820s wrote of widespread mixed race relations:

They are also seen in every district of which I know anything; and notwithstanding the general fidelity of the natives to each other, the husband is extremely proud of a white child as he calls it. The habits of the half castes are the same as their parents, and I know of no serious attempts that have been made to civilize them.

In his book *Indians in the Americas, The Untold Story* (2005) William Marder claims that by 1930 nearly 50% of the Native American population were of mixed descent which highlights the incredible impact of miscegenation of traditional populations (Marder, 2005, p. 81).

5. Exotic Disease Theory and Methodology

5.1 Source Reliability

Exotic disease theory is directed toward the reliability of historical sources. By this I mean the interpretation

by historians of information provided exclusively by colonial sources rather than Indigenous perspectives. One could argue such a view contains an inherent bias. For example if the historical source of such information is the conquerors does it not raise serious questions about the reliability of such primary archives? Rather than blindly accept the testimony of the conqueror shouldn't the historian apply greater scrutiny to the evidence as would be applied in a court of law? So educators should carefully consider historical interpretations of colonial contact between Indigenous people. It is colonists who are telling the story and do they have an ulterior motive to exaggerate the historical events of the past such as maintaining Christian or any other religious morals and ethics?

5.2 Colonial Ethnographic Alibi

Is exotic disease theory an escutcheon which is beneficial to the colonist by diverting culpability away from the imperial power as there is no deliberate intent to harm Indigenous people? Exotic disease is then seen as an act of nature whereby the inferior immunity of Indigenous people is the main problem, and at the same time allowing the imperial power to maintain moral credibility. Historian Juliet McMullen writes:

The attribution of lack of immunity...should be fully questioned...the explanation of "lack of immunity" plays into a survival of the fittest and civilizing narrative...we must think about how opportunistic infections take hold of humans whose immune systems are weakened through the effects of inequality (McMullen, 2009, p. 46).

5.3 Medical Evidence

Another problem with the teacher assuming that exotic diseases have been responsible for Indigenous depopulation is medical proof. According to the criteria set by the World Health Organization (WHO) for identifying diseases it would not be possible for the members of the medical profession in colonial times to accurately diagnosis diseases such as influenza and smallpox, especially given the state and status of medical training at the time. For example in order to diagnosis smallpox it is necessary to make regular daily observations during the symptomatic phase and then conduct laboratory tests for confirmation (WHO, 2009).

5.4 Diagnosis

The accuracy of diagnosis is further compromised by a large range of possible mimics. For example in the case of alleged smallpox there are many diseases and poisons which produce signs and symptoms consistent with the pathology of this virus. According to the American College of Physicians there are at least three viruses which could be mistaken for smallpox. These diseases are varicella (chicken pox), Herpes Zoster (Shingles) and Molluscum Contagiosum which all present symptoms similar to smallpox. In severe cases these viruses can be fatal. There also remains the possibility it was a virus which was like smallpox and was a pox strain unknown to Europeans (American College of Physicians, 2013).

5.5 Differential Diagnosis

According to medical criteria set by the World Health Organization, eighteenth and nineteenth century medical physicians would have lacked adequate technology to make an accurate diagnosis of smallpox. Given the state of medical training, knowledge and technology at the time, such physicians could only make an external observation of a patient's signs and symptoms. A definite, differential diagnosis under such medical limitations is extremely difficult. These deficiencies in diagnostic technology are applicable to any diseases used in western history, whereby a eighteenth or nineteenth century diagnosis has been solely based on signs and symptoms. In fact, the same fundamental flaw is applicable to any Western histories which make definitive conclusions about

the exactness of a virus or bacterial infection based on anecdotal evidence (WHO, 2002).

6. Is Exotic Disease Defamatory of Indigenous Peoples?

Is the teacher/researcher a conduit of cognitive imperialism? Cognitive imperialism is defined as a form of psychological dominance whereby the knowledge of the imperial power is imposed onto the colonized group. From an Indigenous perspective, exotic disease theory can be deconstructed as an integral component of cognitive imperialism whose main purpose is to reinforce notions of imperial superiority and Indigenous inferiority. Without a subordinate group to impose their superior values and beliefs the imperial power has no need for a rationale which justifies not only the use of military force, but also cultural destruction and dispossession.

It is emphasized that while Indigenous people have traditionally been excluded from the “research academy” they are systematically encouraged to assimilate to the values and beliefs of the imperial power. Values, beliefs, perceptions and ideals of the imperial power are assimilated into the conscience of the subordinate group through imperial education systems. It can be argued that cognitive imperialism underpins the values and beliefs found in exotic disease theory. The Indigenous person learns from a Eurocentric knowledge base that they are more susceptible to exotic disease than the colonizer. The dominant view of the imperial power reinforces ethnocentric beliefs of superiority by emphasizing the weak immunity of Indigenous people. This fundamental relationship between the colonizer and colonized is a key to understanding why exotic disease theory has been embedded in ethnographic tradition, without the need for solid medical proof or Indigenous consultation (Battiste, 1996, p. 228).

The laissez faire approach by historians in relation to exotic disease theory and Indigenous people which is currently in situ has a high chance of leading to false conclusions. Non-medically minded historians are seen as experts on the medical history of Indigenous peoples and present evidence of exotic disease that would not be accepted by any principles of modern science. As Battiste states, “Given the assumed normality of the dominators’ values and identity, the dominators construct the differences of the dominated as inferior and negative” (Battiste, 1996, p. 228).

Similar opinion is found in African-American studies. Rutledge argues that science has been used for many years to distinguish the superior qualities of the colonizer:

Science has often been used as a justification to propose, project, and enact racist social policies. The philosophical and political underpinnings of ideas associated with racial superiority and inferiority were first given scientific legitimacy and credence with the publication of Charles Darwin’s (1859) revolutionary book, *The Origin of Species* (Rutledge, 1995, pp. 243–252).

If exotic disease theories are accepted without questioning, it is easy to explain why alleged European introduced epidemics only impacted on Indigenous people. The mantle of cognitive imperialism assumes ownership and control over all things superior including disease and immunity. It is rarely considered that colonists are in danger of extinction from disease. Most importantly, it is from this imperial knowledge base that Indigenous people are informed that their ancestors died from disease because they had inferior immune systems to the colonizer. Thus, notions of inferiority are also reinforced in the Indigenous psyche.

7. Recommendations

Improving Teaching Epistemology requires a more sophisticated approach to Indigenous medical history

which pays greater attention to the epidemiology of disease. The diagnosis, causes, distribution and control of diseases require careful evaluation and ethnographic records should be viewed with a discerning eye from a medical perspective.

Experts in medical history like Margaret Cox (1993) suggest that writing an accurate medical history stipulates a solid medical data base as opposed to vague ethnographic assessment and nonmedical interpretation. Educators should be mindful of the limitations of colonial ethnography when teaching content about the place of exotic disease in Indigenous depopulation.

Cox advises that writing a quality medical history necessitates consultation of a wide range of potential sources of evidence. These sources range from forensic evidence such as osteological assessment of skeletal remains to medical records including death certificates, which provide names, age, date and cause of death signed by a medical officer (Cox, 1993, pp. 71–79).

Teaching Indigenous content is a challenging aspect of pedagogy which can be improved by awareness of fundamental flaws in colonial ethnography and western historiography. It is apparent there are many interrelated factors which have influenced Indigenous depopulation and the use of exotic disease theory as a major causal factor is highly questionable. According to the latest opinion of the WHO:

Many factors combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact (WHO, 2013).

So it can be seen that the teacher, educator or lecturer should carefully evaluate the social, environmental and physical determinants of health before delivering information which specifically emphasizes natural or acquired immunity theories of exotic disease.

8. Conclusion

In this discussion I have provided an overview of exotic disease theory which aims to encourage open discussion and critical thinking about the causes of Indigenous depopulation resulting in improved delivery of content in the education milieu. It is advised that western colonial ethnography in explaining the rapid depopulation of Indigenous people perpetuates an illusion, now a widespread belief that introduced diseases and immunity were the unfortunate, but unavoidable cause of most Indigenous population decline.

If scientific principles constitute a basis for historical interpretation than the rules of science should be applied because at it stands exotic disease is little more than an enduring ethnographic consensus. Until sound medical evidence is provided exotic disease theories found in much western history are no more than colonial ethnographic constructions. Without support medical data or even knowing if the disease reports mentioned in early colonial despatches are indeed accurate. Indigenous depopulation is a complex issue that extends well beyond theories of acquired immunity. Exotic disease theory is an antiquated Eurocentric construct that maybe better placed in the realm of myth rather than sound medical history. It has been shown that relating historical evidence to exotic disease theory and Indigenous depopulations is problematic. Educators mindful of these limitations and conscious of the complex nature of Indigenous depopulation will deliver quality teaching to students in this specific area of Indigenous study.

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