

Readings on the macrohistory of human invasion processes:

Some thoughts on technological determinism and other evils

In this essay I will look at the three authors assigned as readings for the tutorial. Firstly, some readings from John Keegan's *A History of Warfare*.¹ These readings in particular will be looked at in the context of the larger work. Secondly, Alfred Crosby's 'Ecological Imperialism'², and lastly Jared Diamond's 'Collision at Cajamarca'³. I propose that, as noted in the tutorial, Keegan has a noticeable bias towards technological determinism. However, I also propose that Crosby has a noticeable bias towards the ecological level of explanation, and that this is, in its own way, as bad as Keegan's bias. Diamond is a much better example of taking relevant factors into account, regardless of their original level of explanation.

Also, in this essay I will be using the word 'determinism' to indicate that whatever factor being modified by the word is considered to be the only factor in explaining some sequence of historical events. Thus 'technological determinism' is used to indicate the perception of technology as the determinant of historical events, and 'biological determinism' is used in a similar fashion.

Keegan

John Keegan's project in *A History of Warfare* is to tell the history of warfare in a way that debunks the work of Clausewitz, who was responsible for the widely-known dictum that 'war is the continuation of policy by other means'. Indeed, the book begins with 'War is not the continuation of policy by other means.'

¹ Keegan, J. *A History of Warfare*, Pimlico, 1994 (pp. 126-36; 155-62; 177-82; 188-91; 200-208; 212-17; 263-70; 274-78; 281-290; 296-98.)

² Chapter 2 in Crosby, A. *Germs, Seeds, & Animals*, 1994 (p 28-44)

³ Chapter 3 in Diamond, J. *Guns, Germs, and Steel*, 1997 (pp 67-81)

A brief digression about Clausewitz is necessary here. Keegan explains about Clausewitz's career as an officer in the Prussian regiments of the 18th and 19th centuries. Clausewitz joined the Prussian 34th Infantry regiment at the age of 11⁴ (!), in 1792. He was a soldier for twenty years, fighting in the Napoleonic Wars, and seeing the battles of Jena, Borodino and Waterloo, the last being 'the bloodiest battle Napoleon ever fought.'⁵ After he retired from active duty, Clausewitz wrote the book *On War*. In this, Clausewitz outlined ideals of 'real' and 'true' war. 'Real' war was exactly that, what actually happened in the real world, people being routed, cowardly, and so on. 'True' war was what happened when the army was properly drilled in ideas of 'total obedience, single-minded courage, self-sacrifice, [and] honour'⁶. It can probably be seen by most modern observers why Keegan wishes to dispense with these notions, as this sort of thinking is very similar to the ideals of modern armies. However, in his eagerness to debunk Clausewitz, he has fallen into what seems to be a common trap in history, the problem of oversimplification.

The problem with Keegan is that he seems to believe that everything about a culture is determined by their technology, specifically their military technology. For the purposes of constructing an argument, it would be perfectly acceptable for Keegan to only consider *in detail* the effect of military technology on culture, as long as he did not make out that this level of explanation is all that is required. Unfortunately, in some places this is exactly what he does, and this contaminates other parts of his work in the reader's mind.⁷

A good example would be his theories of why the Mongols were able to conquer so much and hold so little while still maintaining their culture. Indeed, he begins the section on the mongols as follows:

⁴ Keegan, (Op. Cit. 1) p 14.

⁵ Keegan, (Op. Cit. 1) p 8.

⁶ Keegan, (Op. Cit. 1), p 16

⁷ Unfortunately, the readings assigned for this week did tend to give that impression, see later.

Why the Mongols, any more than similar horse peoples of the steppe world who preceded them on the paths of invasion into the civilised lands, should have exceeded them all in the extent and rapidity of their conquests defies easy explanation.⁸

Keegan then puts the lie to this statement by positing an easy explanation based on differences in psychology, which are themselves based on differences in technology, to explain why these seemingly 'less advanced' people could rout 'more advanced' civilisations. That is, the horse peoples tended to be able to beat the 'more advanced' civilisations despite their lack of technology because they took fighting seriously. For them, it was a way of life.

This is not inherently a bad idea, and thus would be perfectly acceptable as long as it had been considered as a factor in a larger analysis. However, it seems that what makes Keegan's explanation a bad explanation is that he uses it as the fall-back, to explain things that he cannot explain via simple technological determinism, rather than letting it be understood that the difference between culture's levels of technological skill is not necessarily the whole story.

The counterpoint to this is that explanation needs to stop somewhere. That is, at some point in considering a complex structure through time, the researcher must make a decision about how much explanation is enough. Braudel, for example, was a great believer in explaining historical events on as many levels as possible, down to the environmental level if necessary. However, in the case of Keegan, it must be remembered that Keegan's project was to debunk the theories of Clausewitz, to explain to military thinkers why Clausewitzian thinking was counterproductive.

To some extent, this project appears to be successful. Not being a military historian myself, I cannot judge how effective a rebuttal Keegan's book would be. However, it would seem that Keegan has quite admirably rebutted

⁸ Keegan, (Op. Cit. 1), p 200

Clausewitz, but in doing this, his priorities have forced him to occasionally create explanations out of thin air that will support his argument. Thus, his work is not a good example of military historical scholarship, which is how we looked at it in the tutorial.

Admittedly, based on the sections assigned as readings, the weak parts of Keegan's argument were more apparent, as they tend to come in the portions of the book that deal with macro-history, which was our focus. Again, we can see the priorities of the researcher(s) shaping the perception of the appropriate level of explanation. This can also be seen in Crosby's work.

Crosby

The full title of the chapter under consideration is 'Ecological imperialism: The overseas migration of Western Europeans as a biological phenomenon.' From this it can be seen that Crosby's aim is to look at historical events *as biological phenomena*. In this respect, Crosby fulfills the requirements for 'biological determinism'.

Crosby explains how white Europeans have conquered the world with the aid of biological exports such as animals, plants, and most lethally, pathogens. According to Crosby, in considering this, one needs to explain how the indigenous populations were decimated and demoralised. However, the most important sentence for this essay is the following:

The obliterating defeat of these populations was not simply due to European technological superiority.

This and the example of the Bantu which follows it are the only mentions of technology in the chapter. Admittedly, the Bantu example attempts to explain that it is not interesting to look at differences in technology as factors, because the differences are underlain by the environmental factors Crosby talks about.

Because of this, Crosby is arguably similar to Keegan in espousing a form of determinism. He is dismissing the technological differences in the events under consideration as explainable via biological factors. In principle this is

true, but in practice, it is impossible to explain the creation of technology using only biological factors. Thus, the difference between the faults of Keegan and Crosby is that Keegan's explanation is unfashionable in its consideration of technology as the determinant factor, while Crosby's is in fashion. In other words, if one is going to denounce Keegan for technological determinism, one should be prepared for denunciations of Crosby for biological determinism, as both are ignoring significant factors because of these ideological biases.

To be fair to them both, space in books and time for research are both limited, and thus it can be difficult to look at all of the factors involved in any sequence of events. However, it is possible, as the next reading shows.

Diamond

The chapter under consideration from Diamond's book concerns the events at Cajamarca, in what is now Peru, on November 16, 1532. The conquistador Francisco Pizarro and his 168 men routed the army of Atahualpa, Emperor of the Incas, consisting of 80,000 men, and captured the emperor.

What is most interesting about this chapter is that it manages to look at this event in both its technological and biological contexts. Diamond gives the reader an account built from the eyewitness accounts sent back to Charles I of Spain, and then asks a number of questions:⁹

1. Why did Pizarro capture Atahualpa?

Diamond points to a number of factors, all related to the superior military technology of the Spaniards. That is, the use of steel, the use of horses, and the use of guns.

2. How did Atahualpa come to be at Cajamarca?

Here Diamond points out that the Incan empire was embroiled in a civil war, precipitated by the epidemic of smallpox that had spread from initial Spanish settlements in Panama and Columbia. Thus biological factors were to some

⁹ These questions from Diamond (Op.Cit. 3), pp 74 - 80

extent responsible for Atahualpa's presence in Cajamarca at that time.

3. *How did Pizarro come to be at Cajamarca? Why didn't Atahualpa instead try to conquer Spain?*

Diamond's answer to this is obvious: The Incan empire did not have the maritime technology required to get from Spain to South America. This maritime technology had been produced by a literate culture, which the Incan empire was not. This allowed for more accurate transmission of information over time and distance.

4. *Why did Atahualpa walk into the trap?*

Diamond relates this to the writing issue. That is, the Incans had practically no writing to speak of in their culture, which did not allow for the accurate, timely transmission of information that would have been required for Atahualpa to have information about the Spaniards and their activities. However, the Spaniards had writing, and this not only allowed them to pass accurate information back to their rulers, but also had allowed Pizarro to read the accounts of Cortes in his dealings with the Aztec empire, and to base his strategy around ideas similar to Cortes' (viz. capturing the emperor and holding him for ransom.)

These four questions and the answers given to them by Diamond show how Diamond does not distinguish as much between technological and biological factors. Instead, he looks at the *proximate* factors of this incident, *whatever they may be*. Thus, Diamond arguably produces 'better' history, as he leaves aside these issues of the various types of determinism and instead looks at the causes of events without as much of an ideological agenda.

Conclusion

The point of this essay was to note objections raised in tutorial discussions of these readings, and to produce some thoughts on these issues. In particular, it was concerned with the labelling of Keegan as a 'technological determinist', with all of its negative associations. It seemed that, if one were to take this point as given, a similar argument could be applied to Crosby, but not to Diamond. This essay is an attempt to understand what makes Diamond

different to the others, and it seems that, in some respects, his writings are better history, as they allow for factors without ideological judgements about what should be given primacy.

References:

1. Diamond, J. 'Collision at Cajamarca', Ch 3, *Guns, Germs, and Steel*, 1997 (pp 67-81)
2. Keegan, J. *A History of Warfare*, Pimlico, 1994 (pp. 126-36; 155-62; 177-82; 188-91; 200-208; 212-17; 263-70; 274-78; 281-290; 296-98.)
3. Crosby, A. 'Ecological Imperialism: The Overseas Migration of Western Europeans as a biological phenomenon', Ch 2, *Germs, Seeds, & Animals*, 1994 (p 28-44)