## Why did Europe conquer the world?

## 2015 Review of a book by Phillip T. Hoffman

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I will cite this book in an upcoming piece on Russia's invasion of Ukraine. The reasons Ukraine seems likely to win are European strategies, training and weaponry. Even at the time of Peter the Great Russia recognized Europe's advantages and tried to incorporate them. Their failure to do an effective job of it is increasingly obvious. Meanwhile, the Western military industrial complex plowed ahead following the practices this author describes well.

See also Ricardo Duquense, The Uniqueness of Western Civilization

## Graham

This is a book by an economist. As is de rigueur in their profession, it involves a number of economic equations. Mathematical expressions to explain why actors act the way they do. Economists are inclined to confess with some honesty that the models are not perfect, but they're the best that they have. Is there question is not the models don't work, but that no model is perfect.

The model in this instance is the tournament model. It is kind of like game theory. If the costs of going to war are small, and the rewards are large, leaders will go to war. They get the glory, and the peasants get the shaft.

That simple rule seemed to prevail in late medieval and early modern Europe. The countries were always at war. The kings and princes benefited from war. As the author points out with an impressive array of statistics, kings and princes rarely died when they lost, however many subjects may have died, and they gained great riches and renown when they won. If you were a sovereign, war was the thing to do.

His thesis is that European powers were always at war, that war brought about innovation and improvements in technology, and that because Europe can was the first to innovate, especially with gunpowder, the singular most important invention of the period, they came to dominate the world.

The author says that other people have had theories as to why the West came out dominant, and those theories are lacking. There is Jared Diamond's Guns Germs and Steel which posits that it was a matter of geography. The geography of Eurasia allowed agricultural technology to spread East-West and allowed the Eurasian peoples to develop civilization earlier. There is a trade argument. Once the Portuguese in particular learned open ocean navigation, the Europeans had advantage. They could trade easily with one another on the open Atlantic, as well as the Mediterranean. More than that, their ships carried them to the four corners of the earth. As Hoffman indicates, they were able to bring their war machines which were more effective than any of the locals they encountered. They were certainly vastly more effective than those of the Native Americans, Stone Age people who simply could not resist Pizarro, Cortez and the other conquistadores. But Europeans also dominated in Japan, India, Indonesia and other places where they touched down. Western technology simply overwhelmed the natives' ability to defend themselves. As always, as the author carefully points out, there was dissension among the tribes wherever they went, and certain of the locals found it beneficial to ally themselves with Europeans.

To quote from the book, "Above all else, we want to explain improvements in the gunpowder technology and understand why the Europeans pushed it further than anyone else. We can distill what the model says on that subject into four essential conditions for advancing the gunpowder technology via learning by doing:

- "1. There must be frequent war. Rulers must therefore face similar political costs of mobilizing resources and must be battling for a prize that was valuable relative to the fixed cost of establishing a fiscal system and a military apparatus. There cannot be huge differences in the size of their countries or economies or their ability to borrow, although credit can allow the ruler of a small country to fight a larger opponent.
- "2. Frequent war, though, is not enough, for rulers must also lavish huge sums on it. Once again, the prize must be valuable, but in addition, the rulers' political costs of summoning resources must not only be similar, but low.
- "3. Rulers must use the gunpowder technology heavily, and not older military technologies.
- "4. Rulers must face few obstacles to adopting military innovations, even from opponents. Each of the four conditions is necessary with high probability: if one of them fails to hold, the gunpowder technology will likely fail to advance.

"Together, however, the four conditions are sufficient. When they all hold, learning by doing will in fact improve the gunpowder technology. Greater relevant knowledge (so the model also implies) will spur innovation to an even faster pace and ensure that it does not wane as the gunpowder technology ages."

The author's attempts to mathematicise history, to devise formulas to explain his thesis, are interesting. It involves parametrizing historical financial data – productivity, GDP, prices – in a way that can be compared across very different cultures and across time. This is difficult enough. He then goes into the productivity of soldiers. How do you measure their productivity? Their killing efficiency? It is a bold effort even to attempt. By doing so, however, Hoffman gives good insight into the ways in which weaponry, tactics, and even the psychology of soldiering changed through the period under study.

Though the introduction and first chapter would lead one to think otherwise, Hoffman is, in the end, quite modest in the claims he makes for his models. They are useful tools, but they are only that, a tool to augment the standard techniques of historical explanation.

Hoffman, ensconced at Princeton, a bastion of political correctness, leaves important variables out of his equation. He discusses evolutionary anthropologists at length. These academics would attribute differences in inventiveness to cultural factors. He makes no mention whatsoever of evolutionary psychologists, who have a lot to say about the evolution of intelligence. Other authors such as Harpending and Cochran, Clark and Wade write extensively about major, recent evolution among different peoples. Evolving intelligence would appear to be a variable not to be left out of the regression.

Overall, a five-star effort. Hoffman's book has a lot of explanatory power, and it introduces a useful synthesis of tools for analysis of history.