

## THE GREAT DIVERGENCE IN THE ANTHROPOCENE

Prasannan Parthasarathi<sup>1</sup>  
Boston College

**Abstract:** The purpose of this paper is to make explicit and explore in detail some of the implicit assumptions that informed my book, *Why Europe Grew Rich and Asia Did Not: Global Economic Divergence, 1600-1850*. While the theoretical and methodological perspectives that inform the work are laid out in the introduction and conclusion of the book, why these frameworks were chosen is not elaborated upon. The emergence and impact of the Anthropocene, the new epoch which our planet has entered, are essential to the arguments of the book and in my opinion worth elucidation. The Anthropocene is a scientific category. The concept emerged from within the community of Earth System scholars and refers to a new epoch that followed the Holocene and in which “humans constitute the dominant driver of change to the Earth System.” The power of humanity to transform our planet demands a rethinking of historical practices and priorities. By making explicit the implicit assumptions of my work this paper represents a contribution to that rethinking.

**Keywords:** Anthropocene; Divergence; Convergence.

### A GRANDE DIVERGÊNCIA NO ANTROPOCENO

**Resumo:** O objetivo deste artigo é explicitar e explorar em detalhe alguns dos pressupostos implícitos que informaram meu livro, *Why Europe Grew Rich and Asia Did Not: Global Economic Divergence, 1600-1850*. Ao passo que ex na e na conclusão do livro as perspectivas teóricas e metodológicas que o informaram, não desenvolvi ali as razões do enquadramento que adotei. A emergência e o impacto do Antropoceno, a nova época em que entrou o nosso planeta, são essenciais aos argumentos do livro e na minha opinião merecem elucidação. O Antropoceno é uma categoria científica. O conceito emergiu no interior da comunidade de estudiosos da Ciência do Sistema Terra e se refere a uma época que seguiu o Holoceno e na qual “os humanos constituem a força de mudança do Sistema Terra”. O poder humano de transformar o nosso planeta demanda que se repensem nossas práticas e prioridades históricas. Explicitando os pressupostos do meu trabalho, este ensaio é uma contribuição para esse repensar.

**Palavras-chave:** Antropoceno; Divergência; Convergência.

### Introduction

The purpose of this paper is to make explicit and explore in detail some of the implicit assumptions that informed my book, *Why Europe Grew Rich and Asia Did Not: Global Economic Divergence, 1600-1850*.<sup>2</sup> While the theoretical and methodological perspectives that inform the work are laid out in the introduction and conclusion, why these frameworks were chosen is not elaborated upon. The emergence and impact of the Anthropocene, the new epoch which our planet has

---

<sup>1</sup> E-mail: [prasannan.parthasarathi@bc.edu](mailto:prasannan.parthasarathi@bc.edu).

<sup>2</sup> PARTHASARATHI, Prasannan. **Why Europe Grew Rich and Asia Did Not: Global Economic Divergence, 1600-1850**. Cambridge: Cambridge University, 2011.

entered, are essential to the arguments of the book and in my opinion worth elucidation.

*Why Europe Grew Rich and Asia Did Not* departs from the dominant approach to the problem of divergence, which is to identify how Europe was different from the economically advanced regions of Asia and attribute divergence to that difference. Some of the differences that have been cited as making Europe more dynamic are capitalism, greater economic sophistication, superior institutions, higher rationality, and a more scientific culture. *Why Europe Grew Rich and Asia Did Not* argued that these purported differences are not supported by the evidence and that economic institutions, standards of living, scientific knowledge and technological dynamism were comparable across the advanced regions of Europe and Asia. However, these regions did not face the same economic, political and environmental pressures. It was this difference in pressures or context, along with varied state responses, that led to economic divergence.

Two pressures were critical. The first was competition in the global trade in manufactures, which was dominated by the cotton textile exports of India. From the seventeenth century Europe suffered from Indian dominance, while the advanced regions of China, for example, did not face this problem. The second pressure was environmental and stemmed from growing deforestation, which affected both Europe, especially Britain, and parts of China. Responding to these dual pressures, with the aid of state policies of protection and promotion, Britain gave rise to the cotton revolution and the coal-steam complex, which produced a radical global economic divergence. The advanced regions of China faced one of these pressures, the environmental, but did not elicit state support for a response. The advanced regions of India faced neither of these pressures.

While my arguments for comparability have been debated, my methodological claims have received less attention.<sup>3</sup> The planetary predicament that we face today, and is captured in the concept of the Anthropocene, was critical for my approach. We face monumental choices on how we should organize our

---

<sup>3</sup> For an overview of the debate, see PARTHASARATHI, Prasannan; POMERANZ, Kenneth. The Great Divergence Debate. In: ROY, Tirthankar Roy; RIELLO, Giorgio (Eds.). **Global Economic History**. London: Bloomsbury Academic, 2019. p. 19-37.

economies, politics and societies, but so too did those who lived in the seventeenth and eighteenth centuries. It was those choices made by individuals in the past that gave rise to global economic divergence and the economic and environmental conditions provided the context for those choices.

The paper will proceed as follows. It will begin with a definition and description of the Anthropocene. It will then explore some of the ways in which historians have interpreted the impact of the Anthropocene on historical practices and the writing of history. It turns next to a discussion of how the Anthropocene has shaped my thinking on divergence. It will conclude with a discussion of how the Anthropocene forces us to rethink the possibilities of convergence in the global economy.

### **The Anthropocene**

The Anthropocene is a scientific category. The concept emerged from within the community of Earth System scholars and refers to a new epoch which followed the Holocene in which “humans constitute the dominant driver of change to the Earth System.”<sup>4</sup> The Holocene began approximately 10,000 to 12,000 years ago and it provided congenial conditions for the flourishing of human life on our planet. In the Holocene ice ages disappeared and the earth’s climate was warmer and relatively stable compared to what had existed immediately before.<sup>5</sup>

Under these favorable conditions, during the Holocene humans made the transition from hunting and gathering to settled agricultural societies. Therefore, the stable and warmer conditions of the Holocene made it possible for humans to develop economically, socially and intellectually. These developments laid the foundation for the Anthropocene, which is marked by a transformation of the earth due to human activities. In other words, the favorable conditions of the Holocene led to an expansion of production, which led to the greater exploitation of our planet, which has now led us to a new age. Unlike previous ages, however, the

---

<sup>4</sup> ROCKSTROM, Johan et al. Planetary Boundaries: Exploring the Safe Operating Space for Humanity. **Ecology and Society**, v. 14, n. 2, 2009. Disponível em: <<https://www.ecologyandsociety.org/vol14/iss2/art32/>>. Accessed June 21, 2019. Emphasis added.

<sup>5</sup> ROBERTS, Neil. **The Holocene: An Environmental History**. 2<sup>nd</sup> edn. Oxford: Blackwell, 1998.

Anthropocene is one that is the product of the changes that humans have wrought on the planet.

According to Julia Adeney Thomas, the Anthropocene

can be measured in three complementary ways--through the 'planetary boundaries' concept proposed by Johan Rockström and colleagues, the 'great acceleration' proposed by Will Steffen and colleagues, and, most explicitly, through the planetary stratum (GSSP) marking the shift from the Holocene Epoch, which is now under consideration by the Anthropocene Working Group.<sup>6</sup>

Some scholars speculate that human activity produced changes at the planetary level even several thousand years ago. For instance, the retreat of ice ages and the establishment of the Holocene itself ago may have been human produced: the cutting down of forests and the invention of agriculture may have slightly elevated carbon dioxide levels in the atmosphere, which had a warming effect. This interpretation has been disputed, however. Nevertheless, it is clear that throughout the Holocene humans reshaped local environments, as distinct from planetary systems, in significant ways, whether through the use of fire, deforestation, or manipulating waterways.

From about 1800 the human impact on the earth and its systems commenced, accelerating from 1945, marking the shift to a new planetary age, the Anthropocene. A key development was the growing consumption of fossil fuels, whose combustion emits carbon dioxide, increasing levels of that gas in the atmosphere and producing warming of the planet. However, the Anthropocene is more than climate change and it encompasses the transformation of a number of planetary systems, including the lithosphere, where human-made compounds dwarf those occurring naturally, and the oceans, which have been chemically altered by a number of human actions, and the biosphere where a "sixth extinction" looms.<sup>7</sup>

---

<sup>6</sup> THOMAS, Julia; WILLIAMS, Mark; ZALASIEWICZ, Jan. **The Anthropocene: A Multidisciplinary Approach**. [s. l.]: Polity Press, forthcoming 2020.

<sup>7</sup> THOMAS, Julia. Why the "Anthropocene" Is Not "Climate Change" and Why It Matters. **AsiaGlobal Online**. Disponível em: <<https://www.asiaglobalonline.hku.hk/anthropocene-climate-change/>>. Accessed June 21, 2019.

The higher levels of carbon dioxide in our air alone has already had profound consequences with the warming of the earth, the melting of glaciers, the rise in sea levels, and the acidification of the oceans. These changes to the earth's systems means a departure from the congenial conditions of the Holocene, leading to a less predictable planetary and potentially mass extinctions. The future of humans on the planet is now uncertain as we leave the Holocene behind for the uncertainties of the Anthropocene.

Will Steffen, Paul J. Crutzen and John R. McNeill have divided the Anthropocene into three periods. The first, which runs from ca.1800-1945, they label the "Industrial Era." Although coal had been used in several parts of the world before the nineteenth century, and in some places on a sizable scale, its use expanded enormously, first in Britain and then elsewhere in this period. Industrialization intensified the exploitation of the planet's resources and it had a profound environmental impact. The most serious was on the atmosphere. By 1950 levels of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) had risen to about 1250 and 228 parts per billion (volume) respectively. This is a significant increase from their pre-industrial levels of 850 and 272 ppbv. The concentration of carbon dioxide in the atmosphere had risen from a pre-industrial level of 270-275 parts per million (volume) to over 300 ppmv.<sup>8</sup>

The second period, which they call the "Great Acceleration," covers the mid-twentieth century to the early twenty-first. In these decades, human economic activity, and thus impact on the planet, intensified enormously. While population doubled, economic production increased more than 15-fold. Fossil fuel use increased dramatically with the shift to a petroleum economy. One marker of this is the explosion in motor vehicles from some 40 million at the conclusion of World War II to more than 700 million by 1996. The higher levels of production and consumption have had a serious impact on our planetary eco-systems. To enumerate all of these would yield a long list, but among the most important changes were in the atmosphere where concentrations of several important gases have risen significantly, leading to planetary warming and climate destabilization.

---

<sup>8</sup> STEFFEN, Will; CRUTZEN, Paul; MCNEILL, John. The Anthropocene: Are Humans Now Overwhelming the Forces of Nature. *Ambio*, v. 36, n. 8, p. 614-21, 2007. p. 616.

The final period is the future. Steffen, Crutzen and McNeill label this “Stewards of the Earth System?” The fact of the Anthropocene is now becoming more widely known and acknowledged. The question that remains is whether humans can mobilize themselves and resources to avert some of the worst possible consequences of the changes we have wrought upon our planet. As historians, we must at a minimum be aware of these momentous issues and perhaps even contribute to the debates around them.

### **Theorizing History Writing in the Anthropocene**

Several historians have already been engaged in discussions around the Anthropocene. Not surprisingly, environmental historians have been at the forefront, including John McNeill whose essay with an atmospheric chemist and a climate scientist was discussed in the previous section. In a review essay, the economic and environmental historian of Britain, Fredrik Albritton Jonsson, has surveyed recent writings on the Industrial Revolution in the context of the Anthropocene. His central claim is sobering: “The idea of the Anthropocene suggests that the Industrial Revolution constituted not a conclusive escape from natural limits but a temporary reprieve bought with finite fossil fuel stock, which in turn may be undone by climate change and other environmental threats unleashed unwittingly by economic development.”<sup>9</sup>

Albritton Jonsson divides recent writings on the industrial revolution into two groups and he calls the two perspectives that they represent “a major problem of the Anthropocene.” The first sees environmental pressures as critical in shaping the path of economic change and development. The second decouples economic growth from its material context and sees it as propelled by an information economy. He traces both these perspectives to the Enlightenment, but for our purposes, Albritton Jonsson’s review essay points to the urgent need to theorize the implications of the Anthropocene for the writing of history. I will return to an important contribution that Albritton Jonsson makes in this direction later in the

---

<sup>9</sup> JONSSON, Fredrik A. The Industrial Revolution in the Anthropocene. *Journal of Modern History*, v. 84, p. 679-96, 2012. p. 680-1.

paper, but I will first examine Dipesh Chakrabarty's ambitious attempt to link current debates in history to those in climate change.

Chakrabarty's starting point is that as a consequence of the accumulation of greenhouse gases in the atmosphere, "certain scientific propositions have come into circulation in the public domain that have profound, even transformative, implications for how we think about human history."<sup>10</sup> This leads him to formulate four theses on writing history in the Anthropocene.

Thesis one states that the Anthropocene must "spell the collapse of the age-old humanist distinction between natural history and human history."<sup>11</sup> This distinction takes a variety of forms. One can be traced back via R. G. Collingwood and Croce to Vico (although it may be a misreading of Vico, according to Chakrabarty) and argues that humans can only have proper knowledge of political and civil institutions, which they made, in contrast to nature, which is made by God. Proper history is then the history of human affairs. A second is the belief in the essentially unchanging or very slow changing character of the natural world, which is the perspective that informs works such as Fernand Braudel's *Mediterranean*. The Anthropocene shatters both approaches.

Thesis two posits a severe qualification of "humanist histories of modernity/globalization."<sup>12</sup> Freedom and reason have been central concerns of historians of the modern period and modernity seen as representing an expansion of both. The grim future that the Anthropocene poses, however, challenges the narrative of the steady march of freedom and the belief in the power of reason to rescue humanity from such a dark future. The Anthropocene also throws into question the quest for social justice, which may be overwhelmed by the challenges posed by climate change.

Thesis three, according to Chakrabarty, "requires us to put global histories of capital in conversation with the species history of humans."<sup>13</sup> The threat that the Anthropocene poses for the survival of the human species must be integrated with

---

<sup>10</sup> CHAKRABARTY, Dipesh. The Climate of History: Four Theses. *Critical Inquiry*, v. 35, n. 2, p. 197-222, 2009. p. 198.

<sup>11</sup> Ibidem. p. 201.

<sup>12</sup> Ibidem. p. 207.

<sup>13</sup> Ibidem. p. 212.

the critique of capital in its global form. This means more conversations between practitioners of different disciplines. While capitalist industrialization is critical for understanding the beginnings of the Anthropocene, its impact cannot be understood without reference to the species. This requires reconciling the particular, local histories of capital with the universal history of the human species, which will mean novel ways for historians to think and write.

Finally, thesis four states that “the cross-hatching of species history and the history of capital” will probe the “limits of historical understanding.”<sup>14</sup> Much historical thinking draws upon, at the end of the day, the ability to imagine human experience in the past. Species thinking, however, does not rest upon such experience. As Chakrabarty writes, “We humans never experience ourselves as a species.” To make sense of the Anthropocene then requires thinking beyond the boundaries of what has shaped historical writing to this point in time. That is the probing of the “limits of historical understanding.”

The Anthropocene, then, according to Chakrabarty poses significant issues of integration in which the global histories of capital and the modern are brought together with biology and geology. Time, species, capital, and freedom, social justice as well as human consciousness must be rethought to take into account the unprecedented geological epoch we humans have created. While this paper cannot take up all these issues, it will make a small contribution in Chakrabarty’s spirit to a history in the Anthropocene with a focus on the problem of divergence.

### **Divergence in the Anthropocene**

Nowhere in my book on divergence, *Why Europe Grew Rich and Asia Did Not*, is the Anthropocene mentioned. Nevertheless, the reality that human actions have transformed the systems of our planet, with profound biological consequences for humans as well as countless other species, informs the arguments of the book. In this paper I will address three ways in which my book is shaped by the Anthropocene and is an effort to respond to that crisis. These are, first, a rejection of economic determinism; second, an emphasis on human actions,

---

<sup>14</sup> Ibidem. p. 220.



and in particular the state, as opposed to iron laws of economics; and third, a questioning of value judgments that elevate growth over other possible economic or social goals.

### ***Economic Determinism***

*Why Europe Grew Rich and Asia Did Not* explicitly rejected a deterministic view of economic change before the nineteenth century. It argued that industrialization was an unintended consequence of the search for the solution to the pressures that Britain faced in the eighteenth century, most critically global competition in the most manufactured good in the world at that time, cotton textiles, and mounting shortages of wood. The book argued that there was no common endpoint of economic development, however, and other regions of the world were following their own paths as given by political and economic conditions and pressures. This, of course, changes in the nineteenth century when the industrialization of Britain and then western and central Europe made a modern industrial society the desirable goal of economic change. This was true in both capitalist and socialist nations in the twentieth century.

I made the argument for non-deterministic approaches on the grounds that for the period before the nineteenth century to impose a common endpoint to economic change was anachronistic. It was projecting a historical category, industrial society, an idea which dates from the 1830s, to an earlier era which did not know such a category. The Anthropocene provides intellectual material in support of a non-deterministic framework.

E. H. Carr famously wrote that history is an “unending dialogue between present and past.”<sup>15</sup> For Carr, the present shaped the writing of history because historians are a product of their times and the questions they ask of the past and how they approach the facts of the past are shaped by the present in which historians live and work. In the study of divergence, for instance, the current reinvigorated debate that is putting China and India in new contexts, which are in turn giving rise to new frameworks for explanation, as well as the critique of

---

<sup>15</sup> CARR, Edward. **What is History?** New York: [s. n.], 1961. p. 35.

Eurocentrism, have emerged as a consequence of the changing positions of these nations in the contemporary global economy.

The philosopher of history, Louis Mink, also argued that history is a dialogue between the present and the past. He, however, provided a different argument for why our understanding of the past is constantly changing. Mink argued that each generation must rewrite its history because history never stands still. Because history marches forward and reaches a different endpoint, historians must revise their narratives to take into account the new ending.<sup>16</sup> (It may be appropriate to recall here Eric Hobsbawm's definition of history as "the story of how humans got from the Paleolithic age to the Nuclear Age."<sup>17</sup>)

Armed with this insight from Louis Mink, we may now venture some arguments about the impact of the Anthropocene on writing about divergence. The Anthropocene has posed for humanity unprecedented uncertainty about where our global economy is headed. We, perhaps for the first time and certainly on a world scale, do not know what the future holds for us. And previous approximations that the future will look more or less similar to the recent past are no longer tenable.

The predictions for the future of the planet and the species range from mass extinctions, enormous rises in sea levels, which will inundate densely populated coastal areas around the world, severe droughts in major agricultural regions, to the shrinking of major rivers due to the melting of glaciers. The impact of these changes on economic life threatens the sheer survival of billions around the globe and perhaps of the human species as a whole.

Given this situation, we must write histories that assume nothing about the direction or path of change. Our indeterminate present and future must be matched by an indeterminate past. This is why I insisted on the multiple paths of economic change in the period before the Anthropocene. As we entered the Anthropocene, however, those paths merged into one, the one based on the exploitation of fossil fuels, and which has produced the dilemma we face today. But

---

<sup>16</sup> MINK, Louis O. **Historical Understanding**. Ithaca: NCROL, 1987.

<sup>17</sup> HOBBSAWM, Eric. **Interesting Times: A Twentieth-Century Life**. New York: Pantheon, 2003.

as we reflect on history writing in the high Anthropocene, the plurality of paths from this point forward seems increasingly apparent.

### ***Human Action***

*Why Europe Grew Rich and Asia Did Not* insisted upon the importance of human choice and actions in the shaping of economic change, and thus divergence. In this, it was writing against much work in economics and economic history that sees outcomes as the product of iron laws. These laws can take Smithian form, in which economic development is a result of the expansion of the market and the extension of the division of labor; Marxian, which sees the economy as developing in certain ways as a consequence of institutions, most critically those that shape the market and property rights; and neoclassical, which sees economic change as the outcome of market allocation processes. Within writings on industrialization and economic divergence, an example of the first is Adam Smith himself; of the second is Robert Brenner; and of the third is Robert Allen. These writings differ in terms of theoretical framework, but share the commitment to economic conditions leading automatically to particular outcomes.

My book questioned and criticized the iron laws of economics in several ways. Its emphasis on context was to show that similar economic institutions and conditions could yield vastly different outcomes, depending on the economic, political and environmental conditions or situation. This insight built upon several recent developments in economic theory, including behavioral economics, which posited plural forms of human action due to phenomena such as “loss aversion” and “status quo bias,” and information economics. In the case of the latter area, Joseph Stiglitz wrote, “Economies with the same deep properties could have markedly different equilibria.”<sup>18</sup>

In a similar vein, economic actors in the past chose to focus on different issues, which led to vastly different outcomes. For example, in the eighteenth century political authorities in China, the Ottoman Empire and Britain engaged in provisioning their populations with essential goods. The Chinese developed a vast

---

<sup>18</sup> STIGLITZ, Joseph. The Contributions of the Economics of Information to Twentieth Century Economics. *Quarterly Journal of Economics*, v. 115, n. 4, p. 1441-1478, 2000.

granary system, which Bin Wong and others have written about in great detail, which ensured that sufficient supplies of grain were available to the inhabitants of the Qing Empire. This entailed moving grain from surplus to deficit areas, storage systems for grain, and in some cases the accumulation and distribution of money for the purchase of grain. In the Ottoman case, a provisioning motive shaped the attitude of the empire towards trade. Imported Indian cottons were welcomed as they created abundant supplies of cloth at low prices for the subjects of the sultan. The difficulties of local manufacturers in the face of external competition were given less consideration. Finally, in Britain the provisioning of London with cheap coal became critical for the peace of the realm and became an important element of British policy. In retrospect it is easy to see that the provisioning of coal had major ramifications for long-run economic development. The provisioning of grain and cloth contributed in the short-run to well-being, but in the long-run less to economic change in China and the Ottoman Empire. In fact, in the case of cloth, the provisioning attitude may have impeded economic activity in some regions under Ottoman control.

What does all this have to do with the Anthropocene? First, an approach which sees the economy as the creation of humans opens up enormous possibilities for thinking about the present as well as the future. As we attempt to deal with the crisis caused by the transformation of the earth's systems, it is critical to remember that the economy is not subject to laws that are immutable. The diverging responses to wood shortages in the eighteenth century well illustrate this. In Britain, with state support coal came to be used in increasing quantities. In Japan, at the same moment, a strategy to restore and regenerate forests was followed, which stabilized the ecology of the archipelago. Therefore, there is no automatic response to what was a common problem, but diverse ones. We will have occasion to return to this example in the next section of the paper.

Second, an important reason the economy took a variety of paths in the eighteenth century is that state actions and policies shaped the path of economic change. Therefore, the economy is not simply the unfolding of the market and/or institutions but emerges from politics and the choices of political authorities. In our current dilemma, a response to climate change and the other consequences of

the Anthropocene will require significant state action. This runs counter to the free market enthusiasm of our age. This enthusiasm has also shaped writings on divergence (think of the work of Robert Allen, for instance, which rests on very simple neoclassical theory) in which the state does not enter at all in many contributions. Therefore, the present and past are intertwined in writings on divergence. While the Washington Consensus has produced market-centered explanations, historical accuracy, as well as the Anthropocene, demands that the state be brought into the picture.

### ***Growth***

In a review essay on recent writings on the British industrial revolution, Fredrik Albritton Jonsson concludes that “the Anthropocene calls into question the teleology of growth intrinsic to the concept of modernity.”<sup>19</sup> The crisis posed by the human transformation of planetary systems means that the earth can no longer accommodate further economic growth. The accumulation of greenhouse gases in our atmosphere has already reached critical levels. The planetary boundaries analysis showed that at the time of the initial study in 2009 climate, biodiversity and biochemical flows had exceeded the boundary of safety. Of the remaining seven planetary systems, two had not yet been quantified and five fell into a murky middle ground or remained within the limits of safety.<sup>20</sup>

Writings on divergence privilege growth over other economic goals and possibilities, such as security for all or equality, which may be achieved with little or no growth. And in general, economic historians view the performance of low growth or more stationary economies as inferior to the growth-oriented path that emerged in Europe from the eighteenth century. And as the contrasting responses of Britain and Japan to the crisis of wood that both places experienced in the eighteenth century, growth that displaces the problem is not the only solution to an ecological crisis. Therefore, writings on divergence are value-laden.

Such values may be seen in a review of *Why Europe Grew Rich and Asia Did Not* in which the author, Jan de Vries, refers to my description of eighteenth-

---

<sup>19</sup> JONSSON, F., Op. Cit., p. 695.

<sup>20</sup> ROCKSTROM, J. et al, Op. Cit.

century India as “Happy India.”<sup>21</sup> While the favorable economic conditions in the Indian subcontinent in the eighteenth century cannot be universalized because they rested on a high-value manufactured goods export economy, those conditions were undoubtedly superior to what followed in the nineteenth and twentieth century.

But more troubling are the judgments that are implicit in the statement. The first is that pre-modern economic conditions were inferior to those that emerged in the modern. This was certainly not the case for the vast majority of the population of India, where living standards for laborers declined over the course of the nineteenth and twentieth century. Admittedly the evidence for this claim is largely impressionistic. Solid data is hard to find, assemble and interpret, but the heavy toll of famines in the second half of the nineteenth century—20 million may have perished in India between 1865 and 1900 and such mortality had no precedent in Indian history—indicates the precariousness of life for large numbers. As we are coping with the devastation wrought by the early manifestations of climate change, it appears reasonable to ask if the modern economy with its prioritization of growth has turned into a nightmare.

The second is that the European path was the superior one because it produced more economic growth. (At a conference on my book at the London School of Economics I was asked by a European historian, who was frustrated by my framework of multiple paths of change in the eighteenth century, if I wouldn't concede that the European path was the better one.) This raises questions related to profound Eurocentrism in history writing, but this is not where I want to go. More critical for the purposes of this paper is the assumption that the path which would lead to modern industrial society was superior and the true source of economic well-being and perhaps even happiness and satisfaction. Anthony Wrigley has recently concluded his study of energy and the English industrial revolution with the image of Pandora's jar. “Opening Pandora's jar has brought great benefits, but also countervailing dangers,” Wrigley writes. Some of the most

---

<sup>21</sup> DE VRIES, Jan. Review of *Why Europe Grew Rich and Asia Did Not*. **American Historical Review**, v. 117, n. 5, p. 1532-4, 2012. p. 1532.

dangerous arise from the heat-trapping gases that the combustion of fossil fuels releases into the atmosphere, Wrigley warns.

### **Conclusion: The Question of Convergence**

When I tell non-historians about my book, the usual response is, “Well, it’s no longer the case that Europe is rich and Asia is not.” There is a popular perception that Asia is catching up with Europe (as well as North America) in terms of income and standards of living. While this may be case for pockets of China and groups in India and Southeast Asia, this is certainly not the case for Asia as a whole. And it will likely never be the case, now that we are in the Anthropocene, which has profound implications for the possibility of global convergence in standards of living and income.

The reason for this is that we are in a state of ecological overshoot. Sometime in the 1970s or 1980s, the precise timing varies from study to study, humans began to extract every year more resources than could be regenerated by our planet. Ecologists labeled this overshoot. In a word humanity has exceeded the planet’s capacity. This situation has been detailed with respect to forests, water, soil, air, as well as other dimensions of our natural world. And according to some estimates, we now require nearly one and a half planets to sustain current levels of production and consumption.<sup>22</sup> To put it in the scientific framework of the Anthropocene, because of human activity we are no longer within the safe operating space for the planet. This means we are exhausting the planet, which is the source of our livelihoods.

It has taken so many planetary resources for the prosperous regions of the world (along with some prosperous people in the poorer regions) that there is simply not enough to go around for convergence to take place on current economic trajectories. The growth of the north, then, has consumed our planet, leaving little for those regions that did not climb on these paths of economic change in the nineteenth or twentieth century. The conditions that created the Anthropocene are

---

<sup>22</sup> See WACKERNAGEL, Mathis et al. Tracking the Ecological Overshoot of the Human Economy. **Proceedings of the National Academy of Sciences**, v. 99, p. 9266-71, 2002 and MEADOWS, Donella; RANDERS, Jorgen; MEADOWS, Dennis. **Limits to Growth: The 30-Year Update**. White River Junction: [s. n.], 2004, chap. 4.

those that produced overshoot, which means that present distributions of income and wealth across the world are not likely to dramatically change any time in the near future. Yet, they must, if we are to have a world free of hunger and poverty and in which we lay claim to economic and social justice. For we can no longer grow our way out of the problem as countless economists since Adam Smith have argued.

### **Bibliografia:**

CARR, Edward. **What is History?** New York: [s. n.], 1961.

CHAKRABARTY, Dipesh. The Climate of History: Four Theses. **Critical Inquiry**, v. 35, n. 2, p. 197-222, 2009.

DE VRIES, Jan. Review of *Why Europe Grew Rich and Asia Did Not*. **American Historical Review**, v. 117, n. 5, p. 1532-4, 2012.

HOBBSAWM, Eric. **Interesting Times: A Twentieth-Century Life**. New York: Pantheon, 2003.

JONSSON, Fredrik A. The Industrial Revolution in the Anthropocene. **Journal of Modern History**, v. 84, p. 679-96, 2012.

MEADOWS, Donella; RANDERS, Jorgen; MEADOWS, Dennis. **Limits to Growth: The 30-Year Update**. White River Junction: [s. n.], 2004.

MINK, Louis O. **Historical Understanding**. Ithaca: NCROL, 1987.

PARTHASARATHI, Prasannan. **Why Europe Grew Rich and Asia Did Not: Global Economic Divergence, 1600-1850**. Cambridge: Cambridge University, 2011.

PARTHASARATHI, Prasannan; POMERANZ, Kenneth. The Great Divergence Debate. In: ROY, Tirthankar Roy; RIELLO, Giorgio (Eds.). **Global Economic History**. London: Bloomsbury Academic, 2019. p. 19-37.

ROBERTS, Neil. **The Holocene: An Environmental History**. 2<sup>nd</sup> edn. Oxford: Blackwell, 1998.

ROCKSTROM, Johan et al. Planetary Boundaries: Exploring the Safe Operating Space for Humanity. **Ecology and Society**, v. 14, n. 2, p. 32, 2009. Disponível em: <https://www.ecologyandsociety.org/vol14/iss2/art32/>, Acesso 21 jun 2019.

STEFFEN, Will; CRUTZEN, Paul; MCNEILL, John. The Anthropocene: Are Humans Now Overwhelming the Forces of Nature. **Ambio**, v. 36, n. 8, p. 614-21, 2007.



STIGLITZ, Joseph. The Contributions of the Economics of Information to Twentieth Century Economics. **Quarterly Journal of Economics**, v. 115, n. 4, p. 1441-1478, 2000.

THOMAS, Julia. Why the “Anthropocene” Is Not “Climate Change” and Why It Matters. **AsiaGlobal Online**. Disponível em: <<https://www.asiaglobalonline.hku.hk/anthropocene-climate-change/>>. Acesso 21 jun 2019.

THOMAS, Julia; WILLIAMS, Mark; ZALASIEWICZ, Jan. **The Anthropocene: A Multidisciplinary Approach**. [s. l.]: Polity Press, forthcoming 2020.

WACKERNAGEL, Mathis et al. Tracking the Ecological Overshoot of the Human Economy. **Proceedings of the National Academy of Sciences**, v. 99, p. 9266-71, 2002.

ENDEREÇO PARA CORRESPONDÊNCIA:  
Prasannan Parthasarathi  
Boston College - History Department Faculty  
Stokes Hall S323

Recebido: 10/03/2019  
Aprovado: 15/05/2019