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Endogenous and Exogenous: Debating the Historiography of the Industrial Revolution and the Great Divergence

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Abstract

The interpretation of the reasons for the successes and delays in the race for industrialization is still a fundamental issue in the historiographical debate. In particular, the discussion about the “economic success” of the space commonly called the West (that practically means North America, Europe, Japan and Australia/New Zealand) is certainly lively, and its enormous theoretical impact is evident. This article focuses on three different issues: the role played by exogenous factors and endogenous factors in the historiography on different case studies and paths of industrialization; Eurocentrism/ethnocentrism in the approaches to the history of industrialization; and the debate on the roots of the supposed “victory” of the Western (or Euro-American) model. Although the debate is still open, this article shows that in recent decades a new approach on the history of industrialization has emerged and is gaining some hegemony: the need to consider not only endogenous readings of individual cases, but also to insert them into global contexts of relationships.

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Introduction

Since the eighteenth century, modern industrialization has been an incredible force that significantly reshaped world history (Peter N. Stearns 2018, 1). It has been the background in which new and old global hierarchies have been consolidated and where short- and long-term divergences between winners and losers have developed. The interpretation of the reasons for the victories and defeats—and for the successes and delays in the race for industrialization—is still a fundamental issue in the historiographical debate. In particular, the debate about what Elhanan Helpman (2004) called the mystery of growth and the historical determinants of the “economic success” of the space commonly called the West (that practically means North America, Europe, Japan and Australia/New Zealand) is certainly lively, and its enormous theoretical impact is evident. It significantly influences people’s perspectives on the world.

In particular, when as historians we think about the causes of economic divergences, we have to deal with the hegemony, still often prevalent in historical dissemination and public history, of Eurocentric interpretations of the process related to industrial modernization. Today, the strength of these Eurocentric approaches finds its roots in the experience of billions of people who daily relate themselves to the concrete legacy of European modernization, that is the triumph of the pattern of production of goods begun in the factories of mid-eighteenth-century England, within a capitalist business model.

This article will analyze the historiographical debate on the origins of the European capitalist-factory production system which has gradually shaped global industrialization. The objective of the article is to propose a long-term approach to the historiography on industrialization. From this perspective, this essay also analyses well-known historiographical positions that are often no longer considered today, to place them in a context and to understand their impact and legacy. The goal is to present a history of the evolution of historiographic analysis on industrialization and on the “Great Divergence”. For this purpose, this article focuses on three different issues: the role played by exogenous factors and endogenous factors in the historiography on different case studies and paths of industrialization; Eurocentrism/ethnocentrism in the approaches to the history of industrialization; and the debate on the roots of the supposed “victory” of the Western (or Euro-American) model. A main contribution of this article is to show that in recent decades a new approach has emerged and is gaining some hegemony, that is the need to consider not only endogenous readings of individual cases of study, but also to insert them into global contexts of relationships. In this perspective, various interpretative models attentive to exogenous and relational factors will be analysed, such as the California School’s analyses, post-colonial studies or new neo-Marxist approaches.

The starting point is to highlight the long duration of the hegemony of Eurocentric institutionalist approaches of Weberian origin in the historiography on the history of industrialization. For example, this is evident in *The Rise of the Western World* (Douglass C. North and Robert P. Thomas 1973), the landmark book on the impact of property rights on European economic development which has represented a cornerstone of the “New Economic History”.

James M. Blaut maintained that many of Max Weber's ideas still underlaid much of contemporary Eurocentric historiography (Blaut 2000, 13). More than twenty years after Blaut's claims it can be observed that in Western countries (in North America and Europe in particular), historiography has not fully overcome what Ricardo Duchesne (2001-2002) called a “Eurocentric consensus”.

Eurocentric representations of the Weberian approach continue to represent an important paradigm in public discourse. The idea posits Europe as the only active agent, implying that the rest of the world has been eminently passive for centuries (Agnolletto 2019 and 2021). For example, the background of these approaches is what historian and sociologist

Agnoletto: Endogenous and Exogenous

Michael Mann wrote in the 1980s, which dated the dominion of European society in the history of world civilization back to a sort of European Iron Age (Mann 1986 and 1988). In this narrative, Europe is described as the “origin” of contemporary history, while extra-European areas do not have any tangible or valid “past” until they enter into contact with the European universe. Europe is therefore represented as the center which, by its own endogenous merits, has been able to initiate virtuous and self-generated processes of change and modernization, while the “others” have been long since relegated to its periphery. Paradigmatic examples are Lynn White's essays on European dynamism, which describe Europe as the heart of technological inventions since the Middle Ages (White 1962 and 1982). According to this perspective, Medieval Europeans invented, for example, the iron stirrup, heavy metal plough, horse collar, three-field system of crop rotation, and so on (Blaut 2000, 115-116), although since the 1950s and the 1960s historiographical studies have been available which demonstrated the existence of these innovations in other geographical areas (see, for example, Joseph Needham 1954, or Damodar Dharmananda Kosambi 1965). Similar Eurocentric approaches are also identifiable in celebrated volumes such as the 1981 book *The European Miracle* by Eric L. Jones, who also associated technological innovation with Europe since the Middle Ages; for example, he awarded inventions such as the windmill only to European genius, although the presence of windmills was already well documented and traced to either ancient China or Korea (Blaut 2000). The point is that the presence of such inaccuracies in historiography concerning the processes of modernization and industrialization goes on and on.

In this article I argue that at the basis of these narratives is the transposition of European history from a “regional” affair to a “universal” experience, which is represented as the standard of evaluation of the successes and failures of other “civilizations”. In this perspective, the encounter with the European model is often represented as the element that has allowed (and still allows) the passage from “tradition” to “modernity”. It is the approach of the “not yet” rhetoric to evaluate the history—but also the present—of “other” realities (Agnoletto 2019, 2021).

As Jack Goldstone has argued, generations of students learned in European and American schools about world history by studying the so-called Western civilization. From this perspective, history started with the emergence of democracy and philosophy in ancient Greece and Rome, continued with the rule of Europe's kings and knights in the Middle Ages, followed by the triumph of arts and explorations between the fifteenth and seventeenth centuries, until the military, economic, and political domination of the world by the Western nations (Goldstone 2008a, vii). Goldstone describes well the hegemony of that Eurocentric approach that this article aims to highlight. In the following sections I will undertake a comparison between these Eurocentric approaches and other interpretations to the history of modern industrialization that have imposed themselves in recent decades.

The remainder of this article is structured as follows: a historiographic review begins with traditional Anglo-centric approaches to the history of the first Industrial Revolution. It is followed by the description of long-term interpretations based on concepts such as “industrious revolution” or proto-industry, but which remain focused on the search for endogenous factors that would have favored the advent of the industrial factory system in Europe rather than in other areas. The second part of this essay is dedicated to historiographic traditions and authors who have focused their attention on the search for exogenous determinants at the origin of the industrialization processes and how these theories have interacted with endogenous-oriented approaches. Finally, some concluding remarks on the impact of these new approaches are proposed.

The Creation of a Historiographic Myth: The English Industrial Revolution

The processes at the origin of European industrial modernization had a space-time epicenter in what is commonly called—thanks to Arnold Toynbee (1884)—the English Industrial Revolution, which started in England in the mid-eighteenth century. We recognize in it a premise of a subsequent evolution or a point of arrival of a long journey—a fundamental break or a significant moment of passage—but certainly the English Industrial Revolution represents a fundamental conceptual prism in the historiographical debate. In this debate, Weber's related and well-known approaches (Weber 1904 and 1905)—or rather, their popular dissemination—played a paradigmatic and hegemonic role for much of the twentieth century and beyond. This hegemony combines different aspects of the complex Weberian thought, often trivializing it and reducing Weberian complexity to one-sided casual interpretation.

Typically, “Weberian” interpretations that highlight the cultural and ideological aspects described in the celebrated *The Protestant Ethic and the Spirit of Capitalism* (Weber 1904 and 1905) alternate with more modern institutionalist approaches that make up the posthumously-published volume *General Economic History* (Weber 1923). They represent an exemplary case of an interpretation of the triumph of the European industrial model based on the centrality of endogenous factors as necessary pre-conditions for the triumph itself, rather than the economic-structural constraints and interrelations.

Such interpretative hegemony had long been exercised by multiple, strictly institutionalist approaches. A paradigmatic example is represented by interpretations that examine the importance of the protection of property rights as the element that would have been able to reduce economic uncertainty and transaction costs and thus facilitate English and European industrial expansion (North and Thomas 1973). Also, the development of the British patent system (starting from the seventeenth century) is often quoted as an important factor that contributed to the development of the unique situation for the start of the Industrial Revolution (Sean Bottomley 2014). Similar institutionalist approaches looked at the role played by the political structure (in the form of a minimal government) or the flexibility of the English legal system created after the 1688 Glorious Revolution that contending explanations claim would have created a favorable environment for entrepreneurship (Daron Acemoglu 2003; J. Bradford De Long and Andrei Shleifer 1993; North and Barry R. Weingast 1989).

Institutionalist approaches have defined the basic foundations of various Eurocentric and endogenous interpretations of industrial and technological progress (see, for example, Joel Mokyr 2007 and 2012). In this article I argue that many of these institutionalist approaches to the phenomenon of industrialization (such as W.W. Rostow 1960, or Sho-Chieh Tsiang 1964) are based on dualisms that, although different, have in common linear representations of its development. These are the narratives of industrialization that evaluate the success of a case study based on its correlation with an alleged “best way”. They usually refer to some of the following dichotomous interpretations: modern *against* pre-modern, rise *against* decline, development *against* backwardness, and innovation *against* technological delay.

These settings described the historical process of the so-called first Industrial Revolution as a regulatory model, and it is in the context of these approaches that the historiographic category of the “exceptionalism” of the English experience was developed (Christopher Colvin and Alexandra de Pleijt 2018). Correlated to the notion of English exceptionalism, some historiographic concepts are used to explain the English case, such as the so-called “technological style”, which is the set of congruent technologies that becomes normal within a specific society and that incorporates a specific view of the world (John M. Staudenmaier 1985).

These approaches maintained the distinction between the technological style of the English Industrial Revolution and the category of “entrepreneurial spirit”, defined as a set of economic and meta-economics values which were developed as an alternative to the

traditional rules of the Ancient Regime. This spirit would have been capable of affecting all production and exchange activities: agriculture, industry, communication, credit, and commerce (Aldo Carera 1995, 58). From this perspective, the entrepreneur and the factory are presented as the most important actors, as well as social products of a process that is described as both complex and unitary. The study of “entrepreneurship” finds its centrality as one of the main focuses to be investigated in order to understand the English Industrial Revolution (Tom Kemp 1993; Mokyr 2012).

In particular, the entrepreneurial spirit, described as a virtuous combination of innovation ability and the pursuit of profit in a competitive world, would have been an irresistible and creative drive which impelled impressive changes in both products and in production organization (Carera 1995). Moreover, according to “exceptionalist approaches”, for the first time in history, the ability to systematically apply technological innovation to production would have been combined with the centrality of the market compared to other models of customary and backward economic relations.

According to the concept of English exceptionalism, the causes and visible effects of the entrepreneurial triumph, such as urbanization and increases in agricultural and industrial productivity, would have been structural phenomena that would have occurred—for the first time to that extent—only in eighteenth-century England (Carera 1995; Kemp 1993).

The approaches that referred to the idea of English exceptionalism traditionally correlate the imposition of the entrepreneurial style—and more generally, of the “vision of the world” that is typical of the nascent industrial society—to the affirmation of the so-called “agrarian individualism” (Marc Bloch 1930). Bloch introduced this well-known concept to describe the imposition of private practices in land management, which would have allowed the overcoming of previous *inefficient* feudal and community management models. In historiography, these elements became foundational myths of the idea of a virtuous cycle of technological and organizational innovations that spread from agriculture to industry. The breaking of institutional and social constraints, as well as the spread of mercantile modernity, would have allowed for the triumphant imposition of mechanization, that is, the age of steam and of modern industry. In this historiographic narrative, eighteenth-century England was the place and the time capable of enhancing its endogenous resources: a crucible where it was possible to combine phenomena which had never previously had had the opportunity to interact in such a cohesive way (Carera 1995, 65).

Rostow (1960) represented a significant model of synthesis of these settings. He described the English Industrial Revolution as a general paradigm of modern economic development, potentially applicable in any historical or geographical situation. The so-called “industrial take-off” was represented as the result of a succession of revolutions that were the pre-conditions for overcoming the constraints of the Old Regime in England and created the opportunities for modern industrialization: agricultural and agrarian revolution; scientific and technological revolution; demographic revolution; transport revolution; credit revolution; and commercial revolution. The framework proposed by Rostow of a sequential series of endogenous revolutions as a necessary pre-condition for the success of an industrialization project—and at the same time, the idea of a single model of economic modernization—long had a hegemonic force, especially in the 1960s and 1970s. This happened not only in the historiographic field, but also in the public debate as well as in theoretical and empirical reflections on development (see, for example, Tsiang 1964).

Another interpretative orthodoxy that had shown similar hegemonic potential originated from David Landes’s *The Unbound Prometheus* (1969). His work focused on the dramatic caesura represented by the English Industrial Revolution, an event that Eric Hobsbawm (1968) defined as the most fundamental transformation of human life in all of universal history. From this perspective, the dynamism of post-Industrial Revolution England is proposed in opposition to a static representation of the pre-industrial world: a mid-eighteenth-century Englishman

would have had more things in common with an inhabitant of the Roman Empire at the time of Julius Caesar than with his great-grandson (Fernand Braudel 1967; Carlo Maria Cipolla 1974).

In the same years during which Landes built his interpretative model, other authors instead began to embark on alternative paths that led to discussions of the idea of a universal model of industrialization that would be valid regardless of geographic or temporal location. The American economic historian Alexander Gerschenkron represented an exemplary case. He insisted that the models of modern industrialization have been different in each country and that there have been variations—in particular, related to the specific timetable of their industrial take-off (Gerschenkron 1962). Specifically, Gerschenkron postulated the existence of “substitute factors”, such as, for example, the fundamental role played by the state in the Belgian case study or by the “universal bank” in the German case study, which would have contributed to implementing national industrialization in some of the so-called latecomer countries instead of the components that acted in the original English model. This setting has paved the way for studies characterized by classification methods of the various industrialization processes. Several national cases are cataloged according to their specific dominant substitute factors. Moreover, Gerschenkron’s focus upon “backwardness”, or “relative backwardness”, has become a very important framework for the investigation not only of European industrialization, but of development processes in general (Sergio Fenoltea 2014, 9; Deirdre McCloskey 1991, 95).

In the 1980s another interpretative path emerged that questions unitary models of explanation of the English Industrial Revolution: the regionalist approach. The “spatial interaction model”, introduced by Sidney Pollard (1981), paved the way for the vein of regionalist interpretations of industrial take-off, while not denying the paradigmatic nature of the English case and the deliberately imitative process of European industrialization. Pollard, in disaggregating the analysis at the regional level, highlights how the English Industrial Revolution went through various stages, each based on different factors, and argues that it was regional diversification in terms of resources that allowed for the unveiling of the entire industrial modernization path (Pollard 1981).

Since the 1980s, Pollard’s approach has been part of a flourishing body of literature on the regional or local nature of the first Industrial Revolution (see, for example, Maxine Berg and Pat Hudson 1992). From this perspective, some authors support institutionalist approaches which seem to reaffirm the concept of English exceptionalism. Some interpretations, for example, highlight the role that so-called “municipalism” would have played in a context characterized by the absence of a leading role of the state (Michael J. Piore and Charles F. Sabel 1984). Local public authorities would have pushed in the direction of creating favorable conditions for industrialization, with actions in areas such as improving local roads and professional training, among other factors.

As Francesco Dini (2012) underlines, these same authors often highlighted—alongside the role of local authorities—the protagonism of pre-industrial institutions such as landlords (who, for instance, have toll roads in their possessions) or more “modern” institutions such as private companies who are active in creating the necessary infrastructures for industrial development according to a para-paternalistic approach, which is expressed in the financing of professional schools or other social institutions. Dini highlights these ideas of enhancement of different local institutions in the context of a regionalist historiography which denies any national state protagonism in the evolution of the first Industrial Revolution. In this perspective, some authors periodize the industrial take-off using concepts such as “disorganized” phase (Claus Offe 1985) or “competitive” phase (Scott Lash and John Urry 1987).

The “resource overlap theory” proposed by Edward A. Wrigley (1988) represented another step in the direction of a more complex approach, moving beyond the concept of English exceptionalism. Wrigley highlighted the coexistence of elements of continuity and

discontinuity at the origin of the processes of modernization. From this perspective, some traditional factors that still characterized the English economy of the eighteenth and nineteenth centuries are no longer represented as residual elements but are instead described as parts which contributed to the whole picture. Wrigley opened up an important passage in the direction of overcoming the rigidity of the *modern/backward* dichotomy. Moreover, he introduced as a fundamental factor an element of randomness that favored English success: the large-scale increase in the availability of cheap energy, allowed by the relative abundance of coal in easily accessible seams. The attention of an important historian, such as Wrigley, began to turn to the exogenous and random reasons for industrialist success.

Tom Keefer (2006) proposed an addition to Wrigley's approach to coal's strategic role. He maintained that if it were not for the *geological accident* of the vast coal deposits present in England, the Industrial Revolution could not have happened in that country. In his opinion, English agrarian capitalism, constrained by the limits of solar energy, would have fallen victim to its own internal contradictions and class struggles, and the great depression of the 1830s and 1840s would have represented a definitive crisis for agrarian capitalism without the transition to a new coal-based energy regime. He recalls Barbara Freese's argument regarding the virtuous circles introduced by coal in relation to steam engines and iron (Freese 2003).

In a perspective similar to that indicated by Wrigley on the existence of continuity factors, many historians began to describe the first Industrial Revolution as "less revolutionary". Rondo Cameron (1993) represents a significant example of these new tendencies. Cameron maintained that the term "revolution" appears as an *equivocal* term, unsuitable for describing the modalities and nature of economic change. This process of demystification of the English Industrial Revolution is supported by the results of quantitative research which present data which seem to show lower growth of some fundamental variables such as income, savings, investments, living standards, and consumption over the decades between the eighteenth and nineteenth centuries in England.

Long-term gradualist approaches to industrial change emerged, with the introduction of concepts such as "industrious revolution" (Jan de Vries 2008), or others which highlighted the existence of "industries before industry" in the form of proto-industry, putting-out systems, and home industry (Franklin Mendels 1972). Many authors looked for the ancient origins of the cultural and institutional prerequisites of industrialization that would find its roots as early as the Middle Ages (North and Thomas 1973). Some scholars focused on technology, such as David Levine (2001), who argued that technological changes in Europe began to intensify from about the eleventh century with the diffusion of water mills and windmills.

Thus, a new interpretative orthodoxy emerged which identified in the English Industrial Revolution no longer a moment of caesura, but the outcome of a secular path of modernization that had its centerpiece in Europe: a long-lasting and endogenous development model that facilitated the realization of the "European miracle", as summarized by Jones 1984. While English exceptionalism was abandoned, new Eurocentric approaches emerged which interpret industrialization as the virtuous result of endogenous factors rooted in the most remote European past. From this perspective, the alleged institutional, regulatory, cultural, business, and technological virtues that have fueled European development for centuries have been rewarded by the conquest of the primacy of global industry. The European ascent was once again explained in an internalist manner.

As Kenneth Pomeranz pointed out in the introduction to *The Great Divergence* (2000), if this gradualist historiography has blunted the opposition, which was inherited from earlier theories of modernization between the modern industrialized Europe and its past, then at the same time, these strands seem to suggest that the contrast between the advanced so-called West (that is Europe plus the *European* North America and Australia/New Zealand) and

backward non-West has deeper historical roots than was previously theorized (Pomeranz 2000).

Traditional interpretations based either on English exceptionalism or on the long-lasting European miracle showed the limitations of focusing the search for the causes of undoubted industrial success only on the endogenous characteristics that had featured in the successful case studies themselves.

The Challenge to the Ideas of English Exceptionalism and European Miracle: The Emergence of Readings Based on Exogenous Factors

From the 1970s onward, new interpretations emerged which challenge both the idea of English exceptionalism and the concept of a long-lasting “European miracle”. These approaches look in particular at the history of industrialization from points of view outside the Western universe (especially outside the Euro-North American space), and are united in their efforts to propose exogenous and systemic explanations both for the causes of Western technological and production dominion, as well as reasons for the symmetrical technological and productive backwardness of other areas.

William McNeill’s 1963 volume and its later reinterpretation proposed by the same author (McNeill 1963 and 1990) represent an exemplary case of these evolutions. On the one side, McNeill is one of the pioneers of comparative global history, and his books reflect immense learning on the achievements of societies across the globe and across time, and on the flow and interchange of techniques and ideas that drive socio-cultural change. On the other side, he describes a five-hundred-year process of European civilization changing the rest of the world with an approach that in 1990, showing an uncommon capacity for self-criticism, he characterized as a “form of intellectual imperialism” (McNeill 1990).

Immanuel Wallerstein provides an authoritative example of an attempt to propose exogenous and systemic explanations. Since the 1960s, he has represented a challenge to modernization theorists. He contrasts what he defines as their abstract endogenous logics by placing at the center of his analysis exogenous and relational factors which explain the interrelations between world systems (Wallerstein 1974). Another example is the concept of secular “*systemic cycles of accumulation*”, introduced by Giovanni Arrighi (1994), based on the perspective of highlighting the relational mechanism within the “capitalist world economy” that has led to the construction of a global accumulation regime.

Even the followers of the so-called *dependency theory*, belonging to both the Latin American school (for example, Celso Furtado 1959) and the new Marxist American School (for example, Paul A. Baran 1957), proposed a kind of reversal of perspective when they focus their studies on the peripheries of the industrial world and therefore on *missed* or *delayed* industrial revolutions, and not on the Industrial Revolution by definition. Their greatest intellectual contribution is in having conceived of poverty, regression, backwardness, lack of technological innovation, and delay or absence in industrialization not as a consequence of endogenous factors of these “backward” societies—and therefore not as a result of traditions described as “non-modern” and “non-Weberian”. By contrast, these authors explained delays and defeats on the road to modernity as a consequence of exogenous factors that are not dependent on the specific characteristics of the investigated areas. In particular, they identified the cause of backwardness in the dynamics of the world economy and the disastrous forced integration of the peripheries into the structures of global capitalism and in its unequal power relations (Cristobal Kay 1989).

Another approach that arose as an alternative to interpretations of modernization processes is so-called “post-colonial studies”. If the initial post-colonial approaches, such as those of Edward Said (1978), were more attentive to the deconstruction of the cultural heritage of colonialism—and were therefore less interested in economic issues—then the focus on a

relational perspective opened the field to new interpretations in the different chronologies of the industrialization processes and technological innovation (Andre Gunder Frank and Barry K. Gills 1993).

These post-colonial approaches highlight how the diffusion of contemporary industrial capitalism and technological innovation did not occur in an abstract world dominated by the invisible hand of Adam Smith, but in an asymmetric reality dominated by colonialism and imperialism (Sebastian Conrad 2013, 88). In addition, these approaches represent a theoretical evolution with respect to the settings of Wallerstein, who, while acknowledging the role played by exogenous factors in determining industrial processes, did not definitively abandon a Eurocentric approach when maintaining the interpretative dichotomy between the “suburbs” as “backward” areas and the center.

From this perspective, Frank (1998) symbolized a fundamental step in historiography. He has proposed a definitive challenge to all Eurocentric traditions, including those connected to world systems approaches. Frank maintains that China and the world system connected to it was the center of the pre-capitalist world system (and that it will be the center of a post-capitalist world system). He summarizes as follows: “the West first bought itself a third-class seat on the Asian economic train, then leased a whole railway carriage, and only in the nineteenth century managed to displace Asians from the locomotive” (Frank 1998, 37). I would argue that the path indicated by Frank is to pass from a Eurocentric/West-centric vision to a Sinocentric/Asia-centric one.

Two recent books by Priya Satia have introduced new points of view in the context of post-colonial approaches and the topics covered by this article more generally. In her 2018 “Empire of Guns”, Satia describes the lucrative military contracting that enabled Britain’s near-constant state of war in the eighteenth century to be the true root of British economic and industrial expansion. Gun production and military domination, more than the cotton industry, are described as the roots of British (and Western) global dominion. Satia’s (2020) book “Time’s Monster: History, Conscience and Britain’s Empire” focuses on the notion of a colonial “conscience”, described as one of the pillars of colonial “governmentality” and the triumph of the British Empire. A potent tool used by colonial oppressors was, paradoxically, the mind of the oppressed: British colonialism was able to colonize also the consciences of the subjugated. From this perspective, Satia calls for “history” to be freed from the colonial domination of the conscience and opens the door to the new non-Eurocentric approach to the study of Western global success.

In general, new historiographic perspectives such as dependency theory and post-colonial studies, paving the way for explanations that overturn at the root the reflections on the origins and causes of different industrialization paths, have also facilitated the start of exogenous readings of the first Industrial Revolution. The focus shifts from the availability of internal resources to the existence of external constraints, which have led global and local economic history.

Global History Approaches to the “Great Divergence”: Origins and Contents

Starting from the beginning of the twenty-first century, the debate—animated in particular by California School historians¹—on the economic performance and socio-institutional structures of some non-European areas in the pre-industrial age has highlighted representations that are not compatible with the idea of European exceptionalism with ancient roots (Goldstone 2001).

¹ The so-called California School consists of a group of historians, most of whom were employed by different universities in California, who interpret early modern economics by providing new interpretative frameworks which reject the notion of Western exceptionalism. Among the most well-known were Pomeranz, Roy Bin Wong, Frank, and Goldstone. See Peer Vries (2010) on the California School.

For example, Robert C. Allen (2011) maintained that between the eighteenth and nineteenth centuries, labor productivity and agricultural incomes in England and in the region of the Yangzi delta in China had similar values. Another example is Pomeranz (2000), who argued that eighteenth-century China (and perhaps even Japan) came closer to a sort of neoclassical modern market economy than Western Europe. Goldstone summarized these new approaches by maintaining that “many of the supposedly critical distinctions between European and non-European societies melt away when longer-term trends are considered and when one looks with equal care at Western and non-Western societies” (Goldstone 2008a, 20).

More recently, Richard von Glahn (2016) shows that most factors that have been described as being typical of pre-modern Western Europe or Japan had appeared earlier in pre-modern China. In his long-run approach, he refers to technology, the fiscal-military state, mercantilism, markets and forms of capitalism as significant elements common to both the West and to China.

A fundamental issue in these debates concerns the topic of chronologies, in particular the meaning that the nineteenth century takes on in a global history of industrialization. Many authors in global history show that the living conditions of the populations of vast non-European areas were substantially similar to those recorded in England between the end of the eighteenth century and the early nineteenth century (Arrighi, Takeshi Hamashita, and Mark Selden 2003; Frank 1998; Pomeranz 2000; Kaoru Sugihara 2000; Wong 1997). As Paul Bairoch (1993) highlighted, China had the highest percentage of manufacturing production globally until the 1830s. In 1800, China represented more than one-third of global production, which dropped to just over 6 percent a century later. According to Angus Maddison (2013), China was still the most advanced country in terms of per capita manufacturing production in the 1820s. As Junger Osterhammel (1992) explained, if in the eighteenth century China as a whole was a pre-eminently rural society, at the same time and up to the first decades of the nineteenth century, its commercial balance was mainly characterized by exports of artefacts.

These data indicate that between the end of the eighteenth and the beginning of the nineteenth centuries China was at the peak of its manufacturing capacity, while the nineteenth century was characterized by a manufacturing downsizing process, both in relative and in absolute terms. The issue is not that of replacing a Eurocentric approach with a Sino-centric one but problematizing the relativity of the established chronologies.

This sort of discovery of the complexity of the Chinese world by European and North American academia has been encouraged by a variety of studies investigating different aspects of Chinese history, allowing it to overcome the traditional readings that are still dominant in the West. On the role of technological innovation, for example, Francesca Bray's works on the relationship between technology and gender in Chinese history are noteworthy (Bray 1997 and 2013). On the subject of the history of science in China, Benjamin A. Elman (2006) addresses the interrelationships between the European scientific world and the Chinese one in the modern age.

The recent emergence of non-Eurocentric strands of so-called global history as new dominant historiographic paradigms provides an incentive for analytical approaches that go beyond mere national comparisons. Abandoning the nation-state paradigm as the dominant model facilitates the unveiling of phenomena that were previously invisible to historical research. In particular, the increasing attention at the macro-regional level as an area of investigation (Conrad 2013) enables the study of the history of manufacturing production in areas where the European state model was imposed later.

The case of the Chinese empire in the eighteenth century is emblematic of a productive reality that remained invisible to studies that considered the Chinese entity to be the same as a Western European nation-state. Dismissing the state level as a privileged focus of analysis has also encouraged the development of research that has transnational macro-region

surveys as its object. For example, studies by anthropologist Jack Goody locate Eurasia as the space where the East and West alternately play out their global leadership role (Goody 2010).

Another author who focuses on a Euro-Asiatic space is Victor Lieberman (2009). He finds that many political systems of Eurasia experienced similar trajectories in terms of economic, political and cultural development in the period between 800 BCE and 1800. He points out that the attributes of “early modernity” were a pan-Eurasian phenomenon and that European states were not distinctive. For Lieberman, the reasons for Europe’s success since the Industrial Revolution were basically linked to the need for European states constantly to improve their military and technical capacities. European states remained deeply engaged in military and naval competition for centuries, developing their financial, technological, labor, and administrative capacities to a level superior to those in Asia.

In general, these studies about comparisons between Europe and Asia are connected to the new trends in the historiographical debate on industrialization increasingly focused on the different impacts played by endogenous factors and exogenous factors.

An example of the historiographic paradigm shifts concerns the debate on Europeans overcoming the so-called “Malthusian trap”, which characterized the pre-industrial regime. How did Europe succeed in inhibiting the mechanism by which the effects of technical progress were erased because population increases destroyed improvements in per capita income? A traditional explanation locates the reason for the disappearance of the Malthusian trap in Europe in certain social institutions and endogenous mechanisms of the European way of life, such as later-life marriages, which reduced the number of children per couple and therefore slowed the pace of population growth (John Hajnal 1965). More recently, Gregory Clark (2007) has instead proposed an exogenous factor as the key element that produced the demographic conditions that were favorable to eighteenth- and nineteenth-century European success: the “Black Death” and its long permanence in Europe in terms of repeated outbreaks. Clark claimed that the high mortality produced the paradoxical effect of allowing increases in per capita income as well as increases in real wages.

More and more authors have tried to relate this complex interaction of factors with an explicitly non-Eurocentric approach. This means, first of all, proposing a multicenter narrative of the history of industrialization which goes beyond a vision founded on the alleged progressive Europeanization of the world. At the same time, it also aims to overcome a falsely universalistic “theoretical language” (Conrad 2013, 98) that transformed a partial experience (European history) into the theoretical reference model that also provided the analytical categories and structures to describe the processes of industrialization outside Europe. The new purpose is—with an apparent paradox—“provincializing” Europe (Dipesh Chakrabarty 2000).

The assertion that industrial modernization cannot be described as a linear process of progressive triumph of the Euro-Western model, however, leaves open the question of why the great eighteenth to nineteenth century divergence happened. Why did some state or regional entities walk the road of industrialization first, whilst others lost out or failed to industrialize?

Allen (2006) has been able to take a central position in this debate with his interpretation of the structure of wages and prices as the key factors in the origins of the English Industrial Revolution. In particular, he focuses on high wages and cheap energy. From Allen’s perspective, this combination pushed the application of the technological innovations of the origins of the Industrial Revolution, while it was not convenient to apply them in other areas of the world with different combinations of wages and prices. He describes this successful combination as a consequence of the fact that England was simply luckier in its geology, which meant vast and readily-worked coal deposits. England also benefited from Imperialism—in

fact, Allen connects England's superior real wage performance to a boom in international trade, and in his picture, imperialism and colonialism were necessary to expand trade.

In the Chinese case study, the concept of a "high-level equilibrium trap" developed by Mark Elvin (1972) represents a very important answer to the question of why the Great Divergence in the eighteenth to nineteenth centuries happened. The basic explanation he proposed for why China did not experience an early industrial revolution is a sort of paradox: its high level of scientific and economic achievement gave China a pre-industrial equilibrium that did not make improvements in production efficiency necessary or convenient.

More recently, approaches inspired by the new dimensions of global history allow us to go beyond consolidated interpretations of causes of backwardness that are still inspired by classic theories of modernization that connect industrial delay to alleged combinations of endogenous causes. The history of the Indian cotton industry and its relationship with colonial experience represents an emblematic example. In the eighteenth century, India exported cotton yarns and fabrics to England, and Prasannan Parthasarathi (1998) maintained that in that century, the weekly wage of those employed in textiles and agriculture in the cotton-producing regions of southern India was equivalent to British laborers' wages in terms of purchasing capacity. In his many studies, based on a combination of qualitative and quantitative analysis, he maintains that the capitalist and industrial decline of India in the nineteenth century was the result of English colonialism (Parthasarathi 2011).

Parthasarathi's approach represents a direct challenge to what was for decades the orthodoxy on pre-colonial India, inspired by Irfan Habib (1969), who pointed out that in India in the Mughal period, there was little or no "potentiality" for "capitalistic development". As early as the 1980s, various authors paved the way for "revisionist" interpretations by highlighting capitalistic aspects in pre-colonial India (Joseph J. Brenning 1991; Frank Perlin 1983; Sanjay Subrahmanyam 1990; Subrahmanyam and C.A. Bayly 1988; David Washbrook 1988), but Parthasarathi's ideas represent an attempt to overturn the traditional approach to its roots.

India's case study has become one of the most interesting battlefields for the historiography of industrialization and great divergence. Many authors focus on the decline of the Indian cotton industry during the nineteenth century (for example, Allen 2011; Amiya Kumar Bagchi 1976). The combination of increased British productivity due to technological innovations and the drop in transport costs contributed to a dramatic downsizing of the Indian cotton manufacturing industry during the nineteenth century. In addition, the wage differentials between India and England made the application of the new technologies inconvenient in India. The logic of comparative costs made India an exporter of raw cotton and importer of yarns and fabrics. For example, in the Bhar region, the work force in the local manufacturing industry declined from 22 percent in 1810 to 9 percent in 1901 (Bagchi 1976).

As was the case for China, the nineteenth century in India could have been the century of deindustrialization. As Allen (2011) has underlined, it is important to highlight how India, as a colonized country, could not implement the public policies which in the same years protected North America and continental Europe from English competition: protective duties for nascent industries, development of universal education, and creation of human capital with relative increases in wages, as well as the development of universal banking and financing systems. India, was not in a position to pursue these industrial development strategies, since its policies were subordinated to the interests of the colonial powers. Allen (2011), among others, points out that colonialism was the fundamental exogenous factor in producing the industrial Great Divergence.

Various other authors have contributed to the debate on Indian industrialization and its relationship with colonialism. For example, Tirthankar Roy criticizes the tendency to focus just on colonialism. In fact, he highlights the importance of examining the continuities in Indian economic history, although himself acknowledges the impact of the market-oriented British imperial policy (Roy 2002). A similar approach is proposed by Roman Studer (2015), who

explicitly considers the emphasis on the role of European colonialism to be unconvincing but instead turns his attention to other mechanisms to explain the Indian lag at the time of the Great Divergence. In particular, he considers the integration of European markets from the early modern period as the key to Western success. Kaveh Yazdani (2017) proposes a different approach to the Indian case study. He develops an analysis combining exogenous and endogenous factors to explain the Indian delay at the time of the Great Divergence. On the one hand, he underlines the fundamental role played by external factors, primarily colonial exploitation, but, on the other hand, he highlights the European comparative advantage due to the development of endogenous factors such as the Enlightenment or technological innovations.

Endogenous and Exogenous Factors: Still an Open Debate

It is important to emphasize that the debate on the Industrial Revolution remains a historiographic battlefield. An article by Joseph Bryant (2006) represented a paradigmatic example of an explicit attack against the California School's revisionist approaches. He maintains that these approaches are both "empirically suspect" and "analytically incoherent". In particular, he criticized the idea that similar levels of development would have characterized Europe and Asia until the eighteenth century, and he argued that a transformation such as industrialization would need a long period of preparation and the functioning of long-term factors (Bryant 2006). Goldstone replied in 2008, maintaining that Bryant's ideas were "a product of a *linear* style of thinking, in which change must be continuous, and large-scale changes must be grounded in substantial prior fundamental change" (Goldstone 2008b, 121). This reply became an opportunity to summarize the basis of the California School's revisionist approaches:

... sudden and dramatic *jumps* can develop from slight tips or deviations in underlying functions or relationships. The revisionist view is precisely that—small deviations in Europe, and particularly in Britain, started processes that in the course of the 18th century developed suddenly and contingently into massive changes in the 19th century that produced a modern, industrialized society. (Goldstone 2008b, 121)

Goldstone also underlined how: "the California School is far from united, and thus far from coherent, on how the changes occurred" (Goldstone 2008b, 122). So, for example, he pointed out that Frank (1998) looked at China's temporary reversal due to internal conflicts in the late eighteenth through the early twentieth centuries, while Pomeranz (2000) highlighted the contingent combination of coal and colonies which impelled Europe toward industrialization, but Wong (1997) focused on technological improvements in key fields of production in Europe (Goldstone, 2008b).

Kent Deng and Patrick O'Brien (2017) have recently proposed a methodological critique of the debate on the Great Divergence initiated by Pomeranz. They highlighted that the information available for China and in more dubious quality for India is too fragmentary. In their view, the debate on the Great Divergence requires greater availability of comparable data and "facts". The methodological implications and the historiographical traditions of such a critique are evidently enormous and somewhat complex. If, on the one hand, there is an objective problem of sources, on the other hand, there is a risk of an involution towards methodological Eurocentrism.

In the context of the development of new approaches that can be defined as global history, an important role must be recognized for the work of John M. Hobson, in particular his volume *The Eastern Origins of Western Civilization* (2004), for its impact on the public debate. Hobson proposes a complete overturning of the Weberian and Eurocentric tradition, not only

denying the existence of endogenous success factors in the British and European system but describing the Western triumph as a product of the interactions of the Euro-American West itself with the more technically and socially advanced Eastern civilizations.

Among the most recent global history approaches, Osterhammel's volume *The Transformation of the World: A Global History of the Nineteenth Century* (2009; English version 2014) deserves mention. This volume represents a significant attempt to offer a structural and global representation of what Osterhammel calls "the European Century", that is, an era in which Europe's dominating force is probably at its peak and the other continents took Europe as their "yardstick". The idea is to recognize European domination, but at the same time insert it into a global non-Eurocentric approach.

These global history approaches coexist with the consideration of traditional endogenous institutional and cultural factors of the Weberian tradition, as well as with other traditional interpretative patterns which look at a sort of English exceptionalism and that explicitly challenge the most "trendy" global history. An example is Ho-Fung Hung and Shaohua Zhan's (2013) critique of Pomeranz's interpretation of the Industrial Revolution based on the centrality of the access through colonial control of North America to vast American resources, such as raw cotton and sugar. They argue that this factor's role is exaggerated and maintain that another crucial aspect is missing in Pomeranz's analysis: the key role of urban entrepreneurs as agents in fostering industrialization and transforming opportunities into reality. This is an example of a challenge launched to the generation of global historians that emerged as hegemony at the end of the twentieth century: the traditional endogenous factors are re-proposed, but starting from an analysis that takes into account the elaborations of global historians so as to deconstruct their points of view and question the role played by exogenous and random reasons for industrialist success.

For example, some authors question the focus on the available cheap (coal) energy in Britain as a reason for the success of the "first" Industrial Revolution. These historians underline that for a long time (a period important for example for the formation of the new sector of mechanized textile production) it was water and not steam energy that was used in Britain. Moreover, they also highlight that in the United States the industrial revolution in the textile industry occurred almost exclusively on the basis of the use of water power not steam (see, for example, Dolores Greenberg 1982, and more recently Helmuth Albrecht 2013). Moreover, authors such as Terje Tvedt (2010) maintain that the "water system" factor was a crucial piece missing in existing historical accounts of the Industrial Revolution.

Mokyr (2017) represents a very important intervention in the recent "Great Divergence" debate from a Eurocentric point of view. He presents ideas and culture as the key factors to explain economic growth. In particular, he maintains that the linkages between cultural environments and technological innovation must be investigated, for example the conditions necessary to turn an invention into a usable resource and a lever for economic growth. From this perspective, Mokyr argues that, in Western Europe, the Enlightenment meant the creation of a set of cultural resources that supported the concrete application of technological innovation, while China and India lacked such cultural resources. McCloskey develops a similar point of view in her monumental "bourgeois era" trilogy (McCloskey 2006, 2010 and 2016). She also focuses on the centrality of the "ideas" and in particular on the importance of "bourgeois equality". From this perspective, the "bourgeois virtues" or, better, the market ideology, would have been the engine of the Western capitalistic capacity for innovation and enhancing human welfare.

In the case of these authors, the revival of endogenous approaches, rather than referring to the traditional theory of modernization, now seems to be immersed in a neoliberal vision combined with neo-Weberian references, which provides the theoretical basis for these interpretations. While McCloskey's and Mokyr's approaches seem to revive neo-Weberian interpretations of the Great Divergence and of capitalist modernization under a new neoliberal

umbrella, Toby Huff moves explicitly in a more traditional direction. His works, starting from the 1980s, focus on the role played by religious and institutional factors, and he describes them as the reason why modern science arose in the West and not, for example, in China or the Islamic societies (Huff 2017).

Emma Griffin (2010) offers another recent example of an endogenous and Eurocentric approach. She suggests that in order to understand the English Industrial Revolution fully, historians need to look at the many transformations that took place during the eighteenth century, such as population growth, urbanization, occupational change, agricultural improvement, and technical advancements. In her exceptionalist approach, Griffin maintained that all these factors helped to make the British economy unique and that Britain was, by global standards, an exceptionally prosperous nation.

Interpretations that still look at long-term factors which feature English and European economies highlight a similar approach. In particular, it is interesting to examine interpretations which openly criticize Pomeranz's or Parthasarathi's approaches by introducing the concept of "early modern great divergence" (Stephen Broadberry and Bishnupriya Gupta 2006). These authors aim to demonstrate that "India was not on the same development level as Britain during the seventeenth and eighteenth centuries" (18), and that Indian workers did not enjoy wages as high as English workers. This approach shows the persistence of interpretations still linked to Habib's point of view.

In the same direction, the use of the concept of early industrial revolutions also looks back in order to find the origins of the Great Divergence. This idea is well summarized by Leonid Grinin and Andrey Korotayev (2015, 31):

... in the period between 1100 and 1400, but especially in the fifteenth and sixteenth centuries, the European labor-saving tendencies became implemented to a sufficiently large degree ... This period [is] also quite rightly considered as the time of scientific breakthrough, or rather a number of revolutionary breakthroughs in such areas as mathematics, astronomy, geography, cartography, etc.

These authors revive the historiographic tradition of the English Industrial Revolution as a passage of a long-term process, based on a succession of technological, financial, agricultural, demographic, and commercial revolutions: the so-called theory of early industrial revolutions as the foundation of the English Industrial Revolution. This attempt to restore a notion of long-term explication of the Great Divergence is also based on a rediscovery of traditional research from the 1950s, 1960s and 1970s (for example, Robert Jacobus Forbes 1956; Bertrand Gille 1969; Christopher Hill 1955; Samuel Lilley 1976; White 1978), which precedes the historiographic revolution imposed by the global history approaches. Braudel himself, especially his *Capitalism and Material Life* (1967), is also often quoted to support this long-term approach.

Some authors also react to new global approaches by trying to reread European endogenous factors at the origins of the Great Divergence as consequences of long-term constrictions. For example, Jean-Laurent Rosenthal and Wong (2011) focus on *political* competition in Europe as the impetus at the point of origin of the process of development of European financial markets, a key factor for European growth. Their point seems to be that Europe also needed to find ways for non-extensive growth in geographical terms, while China and India, for example, did not.

Among the more recent and significant volumes that re-propose the centrality of endogenous factors, Bottomley (2014) also deserves mention. He maintains that the British patent system placed that country in a unique position, since for a long time in the eighteenth century it was the only country where inventors were easily able to gain returns from securing

intellectual property rights, thus supporting them in developing the new technologies industrialization required.

Shami Ghosh (2015) offers another critical viewpoint of the dominant interpretation among global historical approaches. His approach does not question the quantitative series that show elements that indicate similar levels of development between Europe and Asia but proposes a different interpretation of them. Ghosh believes it is important to differentiate between commercialization—and even market dependence—and capitalism. He maintains that a high level of market dependence, or even *complete* market dependence at all social levels, does not necessarily indicate a transition to capitalism. His point is that it is not logically or even historically obvious that market dependence must lead to a continual process of profit maximization, which is a basic characteristic of capitalism. Following Ghosh's approach, although relatively market-oriented, some areas of China or India were not "capitalistic" or "protocapitalistic" in their essence.

These kinds of approaches recall Arrighi's differentiation between a *territorialist* logic and a *capitalist* logic, developed in the 1990s. In his words:

Territorialist rulers identify power with the extent and populousness of their domains, and conceive of wealth/capital as a means or by-product of the pursuit of territorial expansion. Capitalist rulers in contrast, identify power with the extent of their command over scarce resources and consider territorial acquisitions as a means and by-product of the accumulation of capital (Arrighi 1994, 33).

In this framework, China was considered the most developed and best established territorialist empire. At the same time as Arrighi, Samir Amin, another author linked to world systems approaches, also proposed a similar distinction between the market fundamentally having to do with exchange and the capitalist market. He connects these differences to the modes of production (Amin 1999).

Neo-Marxist Approaches

It is interesting to note the paradox of the apparent encounter of neoliberal and Eurocentric theories (those of McCloskey and Mokyr, for example) with neopost-Marxist approaches (Arrighi, Amin, etc.) in the identification of the long-term endogenous factors that would have affected the origin of the Great Divergence. It is important to underline that this is actually a false convergence.

Authors such as Arrighi and Amin supported global, non-Eurocentric approaches that consider both exogenous and endogenous factors. However, they also underlined the need to focus on the structural differences in the mode of production when it comes to the study of the history of the development of the industrial capitalist system and the imposition of the Western model. In the second decade of the twenty-first century, these kinds of structural approaches connected to the world systems theories still represent a source for an intellectual challenge to the new global history hegemony originating from the California School (for example, Amin 2011; Kristin Plys 2013).

Neo-Marxist approaches interact with Arrighi and Amin's arguments by providing theoretical analysis of the changes in the relations of production as the background of industrialization processes. The concepts presented in Karl Marx's Volume 1 of *Capital* on the specificities and novelties which feature in the capitalistic mode of production were already widely integrated during the twentieth century by Marxist historiography on industrialization. For example, we should recall Hobsbawm's insistence, most strongly of all Marxists, on the significance of foreign trade and colonialism to the onset of industrialization, as well as his focus on the importance of the world market to the Industrial Revolution (Hobsbawm 1968).

Hobsbawm's approach, and his focus on colonialism and foreign trade, was followed in the 1970s and 1980s by the famous "Brenner debate", which represented an evolution in the Marxist context for the issues covered by this article. This debate started with Robert Brenner's 1976 article in *Past & Present* (Brenner 1976). The same journal published articles by various scholars in response to the paper by Brenner, who replied with a long essay (Brenner 1982).² Brenner proposes a Eurocentric approach to the Industrial Revolution based on the existence of a long-term endogenous factor. He focuses on the importance of the transformation of agricultural production in the English countryside rather than the rise of international trade as the main cause of the transition to capitalism. Brenner maintains that England had already attained a capitalistic form of agriculture by the sixteenth century and that it was the success of this system in increasing agricultural production to a degree that was unimaginable in other parts of the world that enabled England to feed a fast-growing industrial population and thus made possible the eighteenth-century Industrial Revolution.

Brenner's approach provoked strong reactions and criticism within the Marxist milieu but also stimulated a broader debate. For example, there was a Malthusian reaction from authors such as Michael M. Postan and John Hatcher (1978) or Emmanuel L.R. Ladurie (1978), who explained the economic transition to capitalism in terms of demographic theory, denying the central role assumed by Brenner for social institutions such as private property and political power relations. Within the Marxist milieu, a significant disagreement emerged between Brenner and Guy Bois. Bois's concept of the "falling rate of feudal levy" represents a reaction against Brenner's challenge to the traditional Marxist approach and his denial of the existence of large-scale "laws of motion" of a given mode of production (Bois 1978). Bois proposes a similitude between the capitalistic falling rate of profit and a crisis in feudalism deriving from a falling rate of feudal levy, which would have been at the origins of the transition to capitalism in Western countries.

Three decades later, Henry Heller (2011) explicitly reopens the "Brenner debate" by introducing new elements of criticism, again from a Marxist point of view. Heller considers Brenner's approach to be vitiated by economic determinism, in particular due to not having recognized the driving role of the state as a pivot for the birth of capitalism. From this perspective, Heller proposes a theoretical-interpretative generalization: it is necessary to overcome the dualism between a "European" path towards capitalism, described as "purely economic", and other paths driven by state interventions.

Spencer Dimmock (2014) contributed to the "Brenner Debate" with a rich empirical update and a theoretical reinforcing of Brenner's focus on the role played by class struggle to explain the original transition to capitalism in England. Tibor Rutar (2018) reviewed the most recent debate on the "Brenner thesis", starting with Dimmock's book. In particular, Rutar's reflections on the alleged Eurocentrism of Brenner's approach are relevant to the issues addressed in this article. Rutar summarizes the accusations of Eurocentrism that many authors made concerning Brenner's work as follows:

It is argued that Brenner's approach is Eurocentric primarily because its conception of capitalism is so narrow that it is incapable, theoretically, of registering certain epochal events that stretch, partially or wholly, outside of Europe—for example, his approach tends to excise colonialism and slavery. The idea here is, among other things, that because Brenner, and those influenced by his approach, define capitalism as any system in which economic actors are dependent on the market for their survival they implicitly (if not explicitly) characterize extra-economic forms of exploitation as non-capitalist. Only exploitation mediated by market dependence is properly capitalist exploitation, so colonialism and slavery aren't capitalist. (Rutar 2018, 197)

² All these contributions were published in Trevor H. Aston and C.H.E. Philpin (1985).

These kinds of accusations echo a current of global history that has criticized the European Marxist tradition as Eurocentric, such as Blaut's criticisms of Brenner himself, and to his interpretation of the European origin of capitalism (Blaut 2000). Rutar (2018) counteracts these kinds of criticisms from a Marxist/Brenner point of view, arguing that even "extra-economic" phenomena such as slavery and colonialism are part of a framework of exploitation and that they can be considered the cause or a consequence of the process of the construction of the global capitalist system based on the market.

In recent decades, the emergence of global history as one of the hegemonic approaches to the history of industrialization has stimulated other new arguments that explicitly fit into the Marxist tradition. For example, Alexander Anievas and Kerem Nisancioglu (2015) propose a "geo-political" approach to the Marxist understanding of the emergence of industrialization and capitalism.

Are the Chronologies of the History of Historiography Also Eurocentric? Brief Notes on the Soviet Debate Between the 1960s and the 1980s

We should underline how the history of historiography may itself also suffer from Euro- or Western-centrism. For example, the achievements introduced by the California School are usually presented as original innovation, but, as Grinin and Korotayev (2015) have highlighted, these approaches echo, probably without awareness, the debate that has developed in the Soviet academy starting at least as early as the 1960s. This debate concerned different Marxist interpretations of long-term Eastern development in comparison with what happened in the Euro-American West. In particular, on one side, there are authors who support a more traditional approach to Marx's concept of the "Asian mode of production", by maintaining that in the early modern period, Eastern societies were already underdeveloped in capitalist terms (examples include Васильев 1982; Фурсов 1987; and Семенов 1970). What is interesting for this article is the approach supported by their opponents (for example, Ацамба et al. 1989; Губер et al. 1982; Симоновская and Ацамба 1968), who insisted that "in the Middle Ages both the advanced societies of the East and the advanced societies of West belonged to one (feudal) socioeconomic formation and, hence, they had an essentially similar level of development" (Grinin and Korotayev 2015, 5). As Grinin and Korotayev emphasized, these Soviet Marxist scholars present substantial evidence demonstrating that, in the late Middle Ages and in the early modern period, the most advanced societies of the East had approximately the same level of development as the European societies. This means that the divergence became truly significant only in the nineteenth century. They highlighted that this happened in conjunction with colonial and semi-colonial subjugation of the East by the European West.

It is evident that the Soviet debate of the 1960s and 1970s developed in a completely different theoretical context and had a different object, but it introduced a series of issues that echo the California School's later elaborations. In the Soviet debate, the problem was how to place oneself with respect to the original elaborations of Marx and Engels on the peculiarity of the "Asiatic mode of production" with respect to the pre-industrial Western modes of production. Summarized by Donald W. Treadgold (1987, 4), the Soviet debate concerned:

what Marx and Engels thought about Asiatic society, whether one or the other or both changed their minds about it in later life, whether Plekhanov or Lenin accepted the Marxian view in regard to Russia or Asia, whether that view is really to be reduced to some other category and whether it is good or bad Marxism to do so, and so forth.

What is interesting for this article is that some Soviet authors in the 1960s and 1970s started to question the rigid interpretation of the Asian model as a distinct system from the

European or Western one. Thus, they opened the way to the search for exogenous factors to explain the early development of industrial capitalism in the West since these Soviet authors believed that the Asian system did not in itself contain the causes of its own delay. The rediscovery of this Soviet debate and the search for interconnections with Western historiography therefore represent an interesting example of how global history perspectives and the approaches of global history to historiography may be combined.

In the following decades, post-Soviet academic research then significantly entered the debates concerning global history and the Great Divergence, with a *caesura* respective to the Soviet debate. Vladimir Popov's works merit attention, in particular his volume *Mixed Fortunes: An Economic History of China, Russia, and the West* (Popov 2014). He maintains that the key factor to understanding the Great Divergence is the government's capacity to enforce laws and regulations. In particular, Popov argues that the West escaped the Malthusian trap not because it was more innovative or entrepreneurial, but because it dismantled traditional collective institutions that kept income inequality low and so pushed savings and investment. Popov seems to propose an institutional and endogenous approach, but one based on a global and comparative analysis between the European/American West, Russia, and China in particular. Popov's example indicates how the post-Soviet Russian academic school appears to be fully integrated into the Western historiographical debate with little or no echoes of the Soviet-era debates on Eastern and Western development models.

Recent Attempts to Combine Exogenous and Endogenous Approaches

Some authors try to overcome both the Eurocentric/non-Eurocentric and the exogenous/endogenous dualism. An example is Arun Bala's approach to the history of science based on the concept of "Dialogue of Civilization" (Bala 2010). Bala does not deny the success of European science as a crucial factor of industrial and economic success but inserts it into a long-term historical process with fundamental steps that took place outside the European area. This long-term and interactive perspective also represents a new explication for the famous "Needham Question" (Needham 1969) on why China and India were overtaken by the European/American West in science and technology despite their earlier successes.

Over the last decade, Sven Beckert (2014) represents a notable attempt to combine endogenous and exogenous factors to understand successes and failures of experiences of industrialization between the eighteenth and nineteenth centuries. In order to explain the birth and success of Western industrial capitalism, Beckert does not exclude endogenous factors such as the series of extraordinary eighteenth- and nineteenth-century inventions or the existence of certain production relationships as factors which supported the original accumulation, but he highlights two other fundamental elements: the so-called "war capitalism" and slave labor. He describes the complex English state system which aimed—also militarily—for dominion of the sources of supply as one of the interpretative keys for understanding its success. In addition, Beckert directly connects the success of the textile industry in England with the availability of raw material first imported at low cost, as it was produced by massive use of the slave labor that dominated the Southern plantations in the United States.

Beckert's concept of "war capitalism" recalls the tradition of studies that have identified superiority in military technology as one of the keys to European success in relation to its functionality for the imposition of imperialism and colonialism. For example, it is worth mentioning Philip T. Hoffman's research on how Western countries enjoyed higher rates of productivity growth in military technology than other areas, which would have represented a factor that supported the capacity to dominate the rest of the world militarily (Hoffman 2011).

Tonio Andrade (2016) also addresses the relationship between military innovation in China and the rise of the West. He begins by highlighting China's centuries-long technological superiority in the military field. However, between the eighteenth and nineteenth centuries, the

Chinese Empire lost the challenge to Europe and succumbed in what can be defined as the “Great Military Divergence”, which represented a fundamental aspect of the Western victory in the Great Divergence process. According to Andrade, an endogenous element of weakness was paradoxically the long period of peace that China enjoyed starting in the mid-eighteenth century, in comparison with the wars that Europe experienced in the eighteenth and early nineteenth centuries. These stimulated European innovations in the tactical, technological, and organizational fields that would have been at the origin of the technological gap, causing the consequent Chinese military defeats at the hands of the West after the first Opium War.

Finally, a recent article by Korotayev, Julia Zinkina, and Denis Zlodeev (2018) on the one hand attempts to make the California School’s approaches “more global”, but on the other, seems to combine them with reminders of traditional institutional approaches. These authors agree that Asian regions, such as China and India, and Europe achieved strikingly similar results during the eighteenth century, but they introduce the category of “Great Divergence of the 18th Century”. In fact, they suggest that the Great Divergence of the nineteenth century between “the West” and “the East” was preceded by the Great Divergence in the eighteenth century between the Global North and the Global South. The fundamental factor at the origins of the divergence between North and South would have been the

increased effectiveness of their state structures in the eighteenth century. Notably, though in the western and the eastern countries of the Global North the increase in the state effectiveness was achieved through fundamentally different methods, the results turned out to be quite similar. (Korotayev, Zinkina, and Zlodeev 2018, 113)

William A. Ashworth (2017) offers a similar kind of institutional approach. He argues that the key cause of the Industrial Revolution in Britain was state action, which would have helped English industries to overtake their European and Asian competitors. He maintains that it was neither the “invisible hand” of the market nor other endogenous or exogenous factors but a conscious action of the state. Although not from a neo-Weberian or a long-term perspective, Ashworth seems to relaunch an endogenous explication of British success. By putting the state at the center of the scene, Ashworth definitively removes the hegemony on Eurocentric readings from the remit of approaches linked to the tradition of modernization theory. The historiographical framework on the history of industrialization is confirmed to be somewhat complex.

Concluding Remarks: The Impact of “More Exogenous-Oriented Approaches” in the Historiographical Debate on the History of Industrialization

This article focuses on the dichotomy between exogenous and endogenous factors which could have affected the history of industrialization. In particular, it proposes a comparison between historiographic approaches related to different Eurocentric strands of modernization theory with stimuli from both the world system economy theories and global history interpretations, as well as neo-Marxist approaches.

The main interpretative hypothesis proposed in this article is the following: in the context of what has become known in the California School framework as the “Great Divergence”, the relational and exogenous factors are described as playing a fundamental role in determining the success or failure of an industrialization process. In the historiography, interpretative frameworks have emerged that are very dissonant with respect to the traditional readings related to modernization theories. From this perspective, long-term analyses of national or regional economic results are also more complex.

For example, according to many of the authors discussed in previous sections of this article, the economic conditions of industrial backwardness of colonized countries in the mid-

nineteenth century could no longer be easily attributed to supposed endogenous factors typical of being a “traditional society”. So-called industrial underdevelopment would emerge as the combined result of colonial rule, exploitation policies, and slavery. European industrial globalization produced a forced integration between markets and unequal economic realities, as well as a technological exchange process tailored to the needs of the European/Western countries to eliminate labor-intensive production processes.

Furthermore, new studies show that the perverse effect of colonial rule would have lengthened its shadow well beyond the end of colonialism itself (Sandro Mezzadra, 2008). The catching-up process of the latecomer countries became increasingly difficult (Andrea Colli 2017, 250). The newly-independent post-colonial states found themselves at the start of their own “modern industrialization” in a situation that was much more difficult compared to the early industrializers. For example, Colli has highlighted that at the end of the nineteenth century, the distance that separated the leading English economy from continental Europe's most backward economies was two to three times in per-capita gross domestic product terms, while in the 1970s, the difference between industrialized and de-industrialized countries had grown to about twenty-five times.

From a global history perspective, these data show that the great divergence of the eighteenth and nineteenth centuries—imposed with the help of colonialism, imperialism, and slavery—tends to crystallize in the long run due to the mechanisms of increasingly unequal globalization.

At the same time, this article also shows that the role played by short- and long-term endogenous factors continues to re-emerge even in the most recent literature (see in particular authors such as Bottomley 2014; Broadberry and Gupta 2006; Griffin 2010; Hung and Zhan 2013; Huff 2017; McCloskey 2006, 2010 and 2016; Mokyr 2017; Rosenthal and Wong 2011)

Global history approaches should have trained all economic historians to take into account the impact of exogenous factors in a single-case study. At the same time, the literature continues to make explicit the need to consider the mechanisms that have endogenously defined the various experiences of industrialization in their interactions with global phenomena such as colonialism or imperialism.

The recent historiographical debate has also brought out the limitations of interpretative equations such as “endogenous = Eurocentric”. In fact, endogenous readings of industrial history characterize both the traditional Eurocentric interpretations of the theory of modernization and the recent approaches that react to the hegemony of global history from different points of view, be they neo-Marxist or with different ethnocentrisms.

In sum, although the debate is still unresolved, and it is not possible to propose a definitive historiographic balance, the literature in recent decades has certainly highlighted a new course: the need to consider not only endogenous readings of individual case studies, but also to insert them into a global context.

An apparent paradox seems to emerge: the need for global and multipolar historiographic approaches has demonstrated the complexity of a framework that is difficult to understand and has become less intelligible and interpretable through the application of universal models. On the one hand, there is the emergence of “long-term” approaches to the history of industrialization (Franco Amatori 2017), on the other the universalization of the object of investigation seems to have de-universalized interpretative models. As Francesco Baldizzone and Pat Hudson (2016) note, the new trends in global history are demolishing various dichotomies such as East/West or North/South, which have characterized economic historiography of industrialization for decades and which proposed linear interpretations of historic processes. There is ample literature available which critically reviews chronological and geographical dichotomies based on certain juxtapositions—such as statism versus market (De Vries 2015) or servile work versus free work (Cristian De Vito and Anne Gerritsen 2017; Alessandro Stanziani 2014; Marcel van der Linden 2008). At the same time, interesting

attempts to link global approaches to structural interpretations and patterns are significantly present in the historiographical debate (see, for example, Bala 2010; Beckert 2014; Korotayev, Zinkina, and Zlodeev 2018).

It is understandable why the debate on the first phase of modern industrialization remains a fundamental theoretical topic. It brings back issues that could be defined as “ancient”, but which retain their centrality and relevance. For example, the English Industrial Revolution could be described as the result of the creation of a global network rather than the overcoming of traditional exploitation models that in reality did not disappear (such as slavery in the cotton fields of the US). These traditional exploitation models continued to exist but were combined with the unprecedented spread of wage earners and private property in the place from which the product comes (endogenous factors also present in other areas of the globe). These processes were supported by imperialism and colonialism to provide raw materials (on these ideas see Agnoletto 2019 and 2021).

The relationships between these endogenous and exogenous factors will probably remain at the center of the historiographic debate on industrialization in the coming decades. More generally, these issues are playing a central role in the economic and business history debate: for example, in the debate about the idea of “varieties of capitalism”, formalized by Peter Hall and David Soskice (2001), which has become an important common research area for business and economic historians as well as for political scientists and economists. Another example is the parallel debate initiated by British sociologist Richard Whitley (1999) on the alternative comparative business systems approach. It can be assumed that a long-term approach to the literature on the history of industrialization, such as that proposed in this article, can provide new insights into the historical agents that define both the models of capitalism and the types of business systems.

Furthermore, the historiographical debate on the Great Divergence and on the “victory of the West” today also assumes a meaning of complementarity with respect to the discussion about the so-called “Great Convergence” (see, for example, Richard Baldwin 2016; Gianni Vaggi 1998) and the fact that, in the late twentieth century and the beginning of the twenty-first century, some peripheral countries and areas have started to catch up to the so-called developed countries. The long historiographical debate on the history of industrialization described in this article can provide useful insight into the long-term impact on global production processes of various phenomena such as production delocalization, western deindustrialization, information technology, capitalism 4.0, and so on. Similarly, the questioning of consolidated hierarchies, the emergence of new balances, and the clarification that the history of industry is neither “finished” nor static, but continues to be dynamic, also offer new incentives to look back on the great eighteenth-nineteenth century divergence debate.

The impact of this rich historiographic debate on the Industrial Revolution and the origins of the Great Divergence has wider implications outside of the purely academic environment. Reflections on the reasons for the origin of the “wealth of nations” have enormous implications that offer a foundational way of looking at the world and at “others”. Presumed merits and alleged faults in the race for global economic domination represent a fundamental key to reading and relating to the surrounding reality. We should recall that O’Brien (2010) proposed considering English industrialization as one of the many conjunctures of a global economic history rather than the basis for evaluating “delays” or “differences”.

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