

EPISTEMOLOGY OF WORLD SYSTEM HISTORY: LONG-TERM PROCESSES AND CYCLES

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Summary

World system history faces several epistemological challenges given its rejection of the parameters of traditional social science, its search for long-term processes and cyclical behaviors. Traditional disciplinarity, state centrism, narrow temporal and geographical scope are countered with systemic-level analysis, transdisciplinarity, an emphasis on the long-term and globo-centrism. These foundations, together with its inherent empiricism, threaten to make world system history vulnerable to the problems of determinism and indeterminacy. Determinism is discussed and several major examples of work in world system history, with special emphasis on long-term processes and cycles, are reviewed. Few deterministic elements are in evidence. Indeterminacy is a greater challenge, though additional examples show the ways in which scholarship in world system history is working to overcome those difficulties. Successfully dealing with these problems allows the longest-term work in world system history to provide a predictive lens, built on a foundation of evolutionary learning, to millennia-long social processes.

1. Introduction

The world system is a complex mechanism within which humans seek to meet the challenges of continued existence. The system includes both the natural and the social context that humans face. Apprehending the interactions that emerge in such a vast system is a daunting task, and knowledge about the world system, its history, current status and trajectories is difficult to distill. The tools that students of world system history have employed in pursuit of such knowledge are essentially empirical. Human experience (especially our various records of the past) provides the foundation from which to create an understanding of relevant processes. Like naïve empiricists, students of world system history derive ideas and seek to test the correspondence of these ideas with the broader facts in evidence. Unlike naïve empiricists, students of world system history are keenly aware that observations are never unbiased, and are instead prone to a variety of distortions, from the units that are chosen within which to aggregate information to the meanings ascribed to actions across various social, cultural and temporal contexts. The recognition of these distortions, the crafting of mechanisms by which to avoid them, are central to the goals of world system history. World system history is also in part critical theory. Critical theory aims at emancipation by making the structural coercion inherent in various environments transparent. Intellectual pursuits cannot separate themselves from the drive for power and domination. But a truth-oriented search for knowledge, driven by a self-conscious criterion of accuracy, has the ability to help us overcome the two major problems that emerge from social science in the service of those in power. First, pseudo-scholarship created by explicit ideological positioning might be better identified and condemned. Second, scholarship generated with no greater goal than to provide cover for ideological arguments can be unmasked.

2. Shortcomings of Traditional Social Science

World system history is an explicit response to several potentially flawed constructions and is defined in part by the challenges it poses to other orientations. Four explicit challenges motivated the development of world system history: disciplinarity, state-centrism, an overly narrow temporal and an overly narrow geographical scope. Students of world system history seek to build knowledge by identifying and moving beyond these problems, adopting explicitly systemic, transdisciplinary, long-term and globe-centric analyses. The result, a macro-structural view of the world system, is further challenged by scholars who question the legitimacy of structural analysis, who are concerned with the alleged determinism of findings that point to cycles or consistent processes, and the problems of indeterminacy. This chapter reviews these challenges to knowledge, and the response offered by scholars of world system history, by focusing on several important works. It then turns to the question of whether world system history has sufficiently dealt with these problems and can move on to produce useful predictions of world system development in the long term.

2.1. Disciplinarity and State Centrism

The study of world system history was hampered by the developmental paths of the traditional social sciences. These paths included a dramatic separation of the various disciplines, as well as the need of the state for legitimation and contemporary policy-

relevant information. Hence the major intellectual and organizational trends of the past three centuries have worked against the creation of a coherent world system history.

Historian Frederick Teggart argued that the focus of much contemporary historical writing about states was due to the influence of romanticism and an attempt to imbue the spirit of nationality with the set of stories that cast important events within the confines of the modern borders. Past challenges needed to be repainted as national challenges, and past achievements as national achievements. Hence we find the rewriting of history and a narrowing of its focus to the near-term and to the state as the historic unit of analysis.

Along with legitimation, history was to be placed on a more empirical foundation to rid it of the tendency to rehearse the great deeds of the ruling family, or the mythological origin stories of the populace. States sought a solid analytical foundation upon which to make decisions in an increasingly complex world. The discovery of ‘what really happened’ (following Ranke) in the past, and the creation of a rational social order, coherent policies with regard to the economy and the political system, drove the creation of the modern disciplines of history, sociology, economics and political science respectively. In order to understand non-western society, anthropology was also created. These disciplines formed the foundation of the nascent university curriculum of modern states in the 17th, 18th and 19th centuries, and were fully codified by the early 20th century.

One of the earliest imperatives of the new social disciplines was to successfully differentiate themselves from one another. Intellectually, the complex nature of the social world was said to require systematic and concentrated research in the various areas. The creation of special languages, methodologies, and stores of background knowledge were required if the complex nature of society was to be successfully apprehended. There were organizational pressures as well. Analytical separation provides legitimacy to an area of study and a foundation for demands for an autonomous departmental home. Lacking this organizational foundation, scholars and the special questions they ask are vulnerable. The crossing of disciplines becomes a dangerous game that risks stranding interdisciplinary questions and scholars outside the protected realm of secure budgets and tenured lines.

This tendency toward disciplinarity was successful. Specialization created significant stores of knowledge for the various disciplines. But the dividing disciplines also gave rise to impenetrable jargon, incompatible methodologies, and the non-comparable theoretical strains that rendered them the appropriate venue only for their own initiates. Experts from the various disciplines might suggest appropriate historical analogies, precedents, policies, or methodologies by which to understand contemporary issues, but they could not draw all of those important insights back to the large question of how the whole system evolved, or was evolving. We traded the ability to understand world system history for the ability to build special approaches and address narrow contemporary social problems.

Our narrow focus on the state as unit of analysis proved even more damaging to the advance of knowledge than the fragmentation of the various disciplines. The

codification of national states, with their individual histories, policy styles, and state-istics, has skewed the vision of scholars. There is no better example of this than the study of international relations that developed within political science. States have opponents, and international relations became the study of how to deal with them. The realist school of Hans Morgenthau galvanized the discipline in the wake of World War II. First, paying homage to the need to separate the disciplines, international relations was to be only about politics. Other realists who stressed economic and/or ideological issues, like E. H. Carr, were marginalized. Second, the kind of politics studied was to be narrowed. International relations was to be the study of power, primarily military power. Even concepts like 'imperialism' were redefined so as to exclude economic or ideological components. The study of international relations became the study of what states could get away with, while the study of foreign policy became the study of how to get away with it. It would be twenty years before concerns with empirical accuracy, and issues like underdevelopment and energy security, shook the sub-field from such narrow confines.

Without denigrating the desire to be able to offer useful input on the problems of the day, there are two difficulties with the state-centric turn. First, state power has never been as complete as rulers would like it to be. Populations are still divided by contradictory influences. Weapons technology long ago rendered national defense unviable, and any number of important transnational phenomena (immigration, biological threats, finance capital, transnational enterprises, ideologies, ecological degradation) are dealt with only marginally, and not particularly well, from the state-centric perspective. Second, the power of the state waxes and wanes relative to the challenges it must face. In the process, other political instrumentalities arise. These newer, non-state actors exist at the cutting edge of political and social problems, and unfortunately they can remain poorly understood as a result of pervasive state-centrism. The challenges that drive world system history are difficult to consider from such a narrow perspective.

2.2. Narrow Temporal and Geographic Scope

Where and when do we look for what is relevant? There is no explicit answer to such a question, but the implicit responses we derive from contemporary social science are unhelpful. With history conceived as the focal point for studies that help legitimize and guide state policy, longer-term processes are considered irrelevant or arcane. The ideological needs of states further hinder analysis. In the west, sociology and anthropology set to work justifying underdevelopment, political science dealt with geo-strategic thinking and economics was employed to prove the superiority of market systems. The end of the Cold War opened new avenues by reducing political oversight, but also left us without much focus. It is perhaps no surprise that within a dozen years a new enemy emerged. The 'global war against terror' provides a less well organized time horizon, as pundits pretend that 'ancient ethnic hatreds' drive a fight for the survival of 'western civilization' against various 'others'. There is no particular reason to study the origins of this conflict, beyond the (false) suggestion that it is 'ancient', or the (likewise mischaracterized) irrational and anti-modern mindset of the opponent. From this perspective, the most reasonable response is to focus on the forms of sanction and

discipline that might bring victory. Again, a mis-specified unit of analysis and shallow time horizon cripples understanding.

What is particularly unfortunate is that the temporal origins of various problems we face require us to take the longest possible historical perspective, while current problems militate against any significant historical vision at all. Students of radical nationalism and ethnic fratricide in the Balkans may not be satisfied with the shallow and unhelpful suggestion that much of current ethnic nationalism begins with the decline of the USSR. Underdevelopment is hardly a new problem. Self-reinforcing core-periphery relations may be traced back thousands of years. War itself is an activity that can be traced back for between 10 000 and 30 000 years. Our problems are hardly unique to our era, but when they are viewed that way there is a strong tendency against the kind of serious historical treatment that might provide insight. This is a challenge to the very idea of world system history.

Like the time horizon, the geographic nature of what is alleged to be relevant also provides a challenge. For the last several centuries the center of attention in social theory has been Europe. The demise of European dominance with the end World War II did little to alter this. As a result, social development is viewed with a Eurocentric bias and social problems are viewed in the light of the clash of so-called 'modern' European ideas with those of 'backward' places. Efforts to explain the rise of Europe focus mostly on Europe itself. Culturally or religiously generated superior modes of economic organization (usually built on claims regarding security over private property) are mistakenly attributed to Europe alone. On occasion, scholars point to the more effective politico-military systems generated by the challenges of survival in an environment of numerous small, feuding states. This is true even though our history books are filled with tales of other similar systems, from the consolidation of the Mongol Khans, Harappan India, the Egyptian dynasties and the feuding states of Africa and Latin America. These examples are seen but not acknowledged. One might expect that while standing on the rubble of so many significant civilizations, Europeans might avoid the error of viewing their rise as being based on their own exceptional nature. It has not. Reconsiderations of Eurocentric analyses by scholars like Gunder Frank more often yield angry denunciations than attempts to better understand the broad geography of the historical record.

3. Fundamental Methodological Components of World System History

Generating knowledge about world system history requires the application of tools and strategies designed to contravene no less than the very purposes for which the modern studies of history, sociology, politics, economics and anthropology were created. These tools are well illustrated though their use by various authors. Here we deal with systemic analysis, transdisciplinarity, broad temporal inclusiveness and self-conscious globo-centrism.

3.1. Systemic Level Analysis

World system history begins with controversial twin propositions: first, that the system itself, and not its various units, is the proper focus of scholarship; and second, that the

system is more than the sum of its parts. The world system provides the primary architecture within which, and the major incentives by which, actions taken by various actors are structured. Their behavior yields an outcome that is greater than any simple aggregation.

The systemic nature of relevant incentives is well-illustrated by Abu-Lughod in *Before European Hegemony*. Abu-Lughod is concerned with the fact that the scholars and statesmen of early Europe looked to Asia as a more advanced area, while later Europeans characterized Asia as backward. The literature on the 'rise of the west' deals only with western conditions. There is little if any consideration of any decline of Asia. Nor does any traditional literature adequately explain why various areas within Europe and Asia rose or declined: why China withdrew from the global system at the height of its power, why the Champagne trade fairs of France declined while other areas of Europe grew, or why the trade centers of western Asia (like Cairo or Baghdad) lost their status.

The explanation offered is founded on the relations among these areas, and not conditions within them. Drawing on an understanding of trade relations between eight overlapping regions she is able to illustrate the existence of a single system (where changes in one area led to changes in another) that extended from China to Flanders. Goods were financed, produced, transported, protected and exchanged across these regions. Each possessed its own set of social relations that were supported and reinforced by its participation in the system. Each was also vulnerable to interruptions in the global flow of goods. As interactions declined (given natural or social disruptions), the regions declined as well. The ability of an area to re-emerge had little to do with local structures and much to do with the re-emergence of the network. While particularly advanced areas of the system became highly dependent on interaction, those less centrally linked might be less harmed by plague or war, and rebound more quickly. Hence it is relative position in a world system, and the general health of that system, not internal attributes, that determines rise and decline.

Gunder Frank takes up the question of Asian vs. European rise and decline from the point where Abu-Lughod leaves off in *ReOrient: Global Economy in the Asian Age*. He takes issue with Abu-Lughod's suggestion that Asia's decline relative to Europe could be dated so early, suggesting instead that Asia remained the superior part of the economy well into the 18th century. Europe's rise can only be dated to the period during which the tons of silver mined in Latin America were used to purchase a place for itself in the richer and more vibrant Asian world economy.

Asia's initial rise, Frank argues, was based partly on cheap labor and partly on the extensive use of water transport. With the inflow of silver, Asian economies had less incentive to adopt technology and suffered from growing social inequality. Effective domestic demand declined, followed by economic stagnation and political disarray. This created a space for Europeans, whose colonies continued to provide silver and other slave-produced goods for Asia. The profits from such sales, along with the gains born of the development of both long-distance transport and the short-haul 'inter-Asian' trade, were significant. Europe's industrial revolution emerged not because Europe possessed any special in-born advantages, but because its relative poverty and colonial policies

made labor scarce, raised wage levels, decreased the cost of capital and promised significant profits to certain types of innovations. Those innovations followed, and as European goods increased in quality and declined in price, Asia surrendered its economic dominance.

Any adequate understanding of the rise of Europe and the decline of Asia must focus not on one or the other, but on the relationship between them. Ignoring this interaction is tantamount to forfeiting the ability to explain either. Frank faults the core of Europe's social thinkers, followers of both Weber and Marx, for this error. He concludes that the global system itself is the only legitimate level of analysis.

3.2. Transdisciplinarity

Where disciplinarity was a critical component to the development of knowledge of society over the last few hundred years, world system history is defined so broadly that it cannot afford to place arbitrary barriers in the way of historical vs. social vs. economic vs. political understandings. Nor are multidisciplinary (working with scholars of other disciplines) or interdisciplinary (mastering the tools of another discipline and considering 'both') analyses always sufficient. For world system history, knowledge must be transdisciplinary in nature. Transdisciplinarity is characterized by a concern with complex phenomena that cannot be apprehended with sets of analytical tools that are circumscribed by a single discipline. The focus is on the large-scale social process itself. The attempt to create knowledge is often undertaken by scholars trained in one discipline who work in another, or sets of scholars. Large, transdisciplinary projects include not just scholars of different disciplinary backgrounds, but those with a keen interest in obviating those distinctions. Two examples are provided in the work of Arrighi, Chase-Dunn and Hall.

Arrighi, trained as an economist but working as a sociologist, is concerned with the renewed power and global reach of finance capital after an era of capital controls in *The Long Twentieth Century*. Following Braudel, he sees eras of financial predominance not as some penultimate stage in the global system, but as a recurrent historical theme. Similar eras of financial dominance (and breakdown) may be noted during the era of British global dominance, and Arrighi reviews additional evidence on earlier periods. He found similar capstone periods of financial intensity at the end of the eras of both Dutch and Italian prominence.

The eras of Italian, Dutch and British dominance arose based on the different ways in which they organized material life. The Dutch overcame the dominance of the Italian socio-political and economic system for two reasons. First, Italian trade (particularly that of Genoa) was oriented toward the east. This was a significant advantage given the wealth and advanced status of Asia. But as the Asian trade collapsed in the 14th century, Genoa and Venice suffered as well. The Dutch, who concentrated their attention in Northern Europe, were advantaged relative to Italy when extra-European trade declined. The Dutch also organized their global trading links in a novel manner. Genoa and Venice used other powers (those of Iberia and Northern Italy) to provide security for their endeavors. They were vulnerable to the decline of key allies. The Dutch developed and depended upon their own arms. This proved to be another advantage.

Arrighi demonstrates the steady increase in the internalization of necessary activities across each dominant power. Internalization yields greater control, and allows these powers to neutralize challenges from larger, more insular rivals (Spain, France, then Germany) that periodically seek dominance. The steady flow of trade in various regions, the nature of industrial organization, systems that constrained territorially aggressive states and the development of military prowess may help an area grow.

Arrighi's tracing of the complex relationships among these processes requires concern for the unity of social, political and economic processes. They cannot be treated as separate. Rise, crisis and decline can be best understood as a function of the integrated structure of such processes, not as a function of any separate dynamics.

We find a similar rejection of the artificial separation of social, political and economic forces in the work of Chase-Dunn and Hall. Their study of *Rise and Demise* seeks to compare world systems defined as networks of various interactions (those for bulk goods, prestige goods, political and military goods and information). These networks do not correspond to traditional disciplinary divisions and must be studied with a fresh lens. The long-term comparative method that they adopt focuses attention on such issues as the tendency of interaction networks to pulsate (expand and contract). The model they build to address such phenomena includes demographic forces, ecological constraints, technological change and the subsequent formation of hierarchical social systems. Among the challenges that such systems must face we find new forms of competition, new scarcities, new risks and new demands for economic resources. The interaction of these forces produces change in the deeper structural logic of social reproduction. Such changes are especially likely when population pressures cannot be offset by migration, and when pressure builds between core and peripheral areas.

Arrighi, Chase-Dunn and Hall ignore traditional divisions of academic labor in favor of a unified analysis. They transcend simple multi- or interdisciplinary analysis and consider broad social problems directly. Elements of material life, authority, and traditional practice do not simply interact, but instead constitute the world system in ways that deserve to be understood in their own terms, and not in terms of synthetic 19th century categories.

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Bibliography

Abu-Lughod, J. (1989). *Before European Hegemony: The World System AD 1250-1350*, New York: Oxford University Press. [Discussion of the early, non European-centered world system.]

Arrighi, G. (1994). *The Long Twentieth Century: Money, Power, and the Origins of Our Times*, London: Verso. [Reviews the period from the 15th century onward as a series of systemic cycles of accumulation.]

Bohman, J. (1991). *New Philosophy of Social Science: Problems of Indeterminacy*, Cambridge MA: MIT Press. [Highlights the problems of indeterminacy in the social sciences.]

Chase-Dunn, C. and T. Hall. (1997). *Rise and Demise: Comparing World-Systems*, Boulder: Westview Press. [Major statement on the nature of world system pulsations of rise and decline.]

Denemark, R. et. al. eds. (2000). *World System History: The Social Science of Long-Term Change*, London: Routledge. [This work contains major statements on the nature of world system history, as well on methodological problems to be faced, by 18 authors from 6 disciplines.]

Devezas, T. and G. Modelski (2004). Power law behavior and world system evolution: A millennial learning Process. *Technological Forecasting and Social Change* 70 (2003) 819-859. [Traces the dynamics of the evolution of the world system over the longest of terms using learning processes as its generative element.]

Frank, A.G. (1998). *ReOrient: Global Economy in the Asian Age*, Berkeley and Los Angeles: University of California Press. [Extension of world system history to the 18th century, including a review of the rise of the west and the decline of Asia.]

Frank, A.G. and B. Gills, eds. (1993). *The World System: Five Hundred years or Five Thousand?* London: Routledge. [Major statement on the framing of world system history, with examples and criticisms.]

Gurr, T. (1994). Peoples against States: Ethnopolitical Conflict and the Changing World System. *International Studies Quarterly* 38:347-77. [Empirical consideration of the 'clash of civilizations' hypothesis.]

Kiel, D. and E. Elliot eds. (1996). *Chaos Theory in the Social Sciences: Foundations and Applications*, Ann Arbor: University of Michigan Press. [Includes several works that consider the implications of chaos for the study of the social sciences.]

Modelski, G. and W. Thompson. (1996). *Leading Sectors and World Powers: The Coevolution of Global Politics and Economic*, Columbia SC: University of South Carolina Press. [Major statement on the coevolution of economic and political processes from the perspective of world system history.]

Teggart, F. (1925/1960). *Theory and History*, New Haven CT: Yale University Press, reprinted by University of California Press. [Notes the impact of social change on the writing and re-writing of history.]

Wallerstein, I, et. al. (1996). *Open the Social Sciences: Report of the Gulbenkian Commission on the Restructuring of the Social Sciences*. Stanford CA: Stanford University Press. [Review of the history of contemporary social science and a call for its reorganization.]

Wilkinson, D. (2004). The Power Configuration Sequence of the Central World System, 1500-700 BC. *Journal of World-System Research* 10:3 (Fall) pp 655-720. [Culmination of studies of power configurations in civilizations over an 800-year period.]

Biographical Sketch

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