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Review of World City Network: A Global Urban Analysis, second edition

Peter Taylor and Ben Derudder. *World City Network: A Global Urban Analysis*, second edition. 2016. London and New York: Routledge. 228 pages, ISBN 978-1-1388-4357-8 Paper (\$72.95).

For more than three decades, social scientists have been exploring the ways in which transnational processes are lodged within, and generated from, the great cities of the world. Arguably, this line of scholarship developed from work within at least two different specializations or areas of focus. On one hand, there have been those whose research concerned the "big" social processes that crossed national boundaries—immigration, the shift of capital and production from wealthy countries to "developing" countries, and the spread of political infrastructure (e.g., in the form of treaties and trade agreements with ever-increasing numbers of partners) facilitating the latter (but not the former). Social scientists of 'development,' including world-systems scholars have shed a great deal of light on such matters through their research efforts. On the other hand, this research thread has been advanced more specifically and emphatically by urban studies scholars from a variety of disciplines who have theorized, observed, and systematically compared urban areas in terms of their global connections, sometimes by studying the ways in which particular cities articulate with the global order, sometimes concerning themselves with how transnational intercity relations constitute a global order. Geographers have been at the forefront of this second line work, though they have been joined (and sometimes led) by sociologists and other urban studies researchers of varying disciplinary backgrounds.

In their second edition of *World City Network*, British geographer Peter Taylor and Belgian geographer Ben Derudder, both prominent scholars in the literature on globalization and cities,



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have updated their 2004 first edition with new data and analyses, and offer new theoretical considerations. The early chapters in the book imbed the study of the world city network in the broader literatures on large scale social change, urbanization, and globalization, covering important conceptual issues, informing the reader why studying the external relations of cities is important and how it is justified theoretically, and reviewing the related empirical research. This part of the book is followed by a discussion of measurement considerations, reintroducing Peter Taylor's (and the Globalization and World Cities, or GaWC, network's) interlocking network model, and describing how the data are used in the remaining chapters. Taylor and Derudder caution against the tendency of reifying cities in world city research, and they point out that their analysis is based on data having to do with leading corporations in the economic sectors that many regard as the most central to the current era of the world-economy: business service firms in financial services, law, advertising, and management consultancy. The specific data identify the city locations where key firms in these industries have decided to locate offices, from headquarter cities to back offices.

These are the 'GaWC 175'—one hundred seventy-five multinational producer services companies, and they are sorted into 526 cities (up from the 315 in the first edition of the book). Taylor and Derudder use a resulting matrix of these firms' x cities to calculate global connectivity scores for the cities, based on the number of these firms' offices that are sited in each city, combined with a measure of the importance of each office to a firm's operation (e.g., with headquarters scoring "5" and lower level offices correspondingly smaller numerical scores). The remainder of the book is based on empirical analyses of various network properties among the 152 most globally connected of these cities—the subset of cities with global connectivity scores at least one-fifth the score of the most connected city, London.

An early highlight of the book is the discussion about how Jane Jacobs' writing on cities has been a fundamental cornerstone of global cities scholarship. While many of us who study and write about global cities have neglected to properly acknowledge her influence, Taylor and Derudder develop her contributions early in the book and refer to it throughout, making a strong case that it is fundamental to the project. Following her, they posit cities as the basic units of economies rather than nations, and, they note more importantly, that clusters of interacting cities are the engines that drive growth by stimulating innovation and a greater division of labor, thus generating not only more opportunities for such cities' residents but more different kinds of opportunities. They point out, though, that Jacobs' attention remained focused on what happened within cities rather than on the nature of the city clusters that she recognized as so crucial. Of course, it is the clusters – the world city networks – that are the focus of this book, as well as much of Taylor's and Derudder's scholarly careers, both in mutual collaboration, individually, and in collaboration with

constellations of world city scholars. In addition to acknowledging Jacobs, it is worth noting here that they also recognize a debt to Immanuel Wallerstein. Emphasizing that different eras of the modern world system correspond to different city network arrangements, they situate the world city networks of concern to this book in the era of corporate globalization.

Thus, the general conceptual seeds that the authors plant for this edition of the book are sewn in Jacobs' observation that clusters of cities generate innovation and development, and they refine their framework by drawing on John Friedmann (especially his essay, "The World City Hypothesis"), Saskia Sassen (Global Cities: New York, London, and Tokyo), and Manual Castells (The Rise of the Network Society). (Along the way they are diverted by dealing with objections, such as Jennifer Robinson's misguided critique that important cities are left 'off the map' in world/global city scholarship, an argument that seems akin to criticizing scholarship on the rise of corporate agriculture for ignoring urban households that raise chickens. Both are interesting, and they might even be related, but tenuously and indirectly at best.) They follow Friedmann's idea that cities occupy more or less significant roles in wide economic processes and these roles involve articulating the extra-local with the local urban region. To the extent the scope of this articulation is of wide geographic scope, a city is a 'world city.' Sassen's contribution is that important transnational firms, more particularly producer services firms, are the agents of city-to-city transactions, linking them into a network. While much world city research has focused on hierarchical aspects of world cities' positions in global networks, in this book Taylor and Derudder want to draw on Castells in emphasizing networking over hierarchy.

Once equipping the reader with these conceptual guideposts, Taylor and Derudder consider and review approaches to operationalizing global city networks with relational data on flows, and they arrive at two conclusions. One is that the best way to observe these flows is firm-based (firms are actors, cities are not) and somewhat indirect. It is the path taken by the Globalization and World City project, founded by Taylor at Loughborough University but now embedded virtually at <a href="http://www.lboro.ac.uk/gawc/">http://www.lboro.ac.uk/gawc/</a> and involving global city scholars worldwide. Since the 1990s, Taylor and his colleagues have built a dataset that identifies the city locations of producer services firms' headquarters and back offices. Their second conclusion is that, for purposes of this book, they are guided by 'central flow' theory, rather than central place theory. Thus, the emphasis on networks rather than hierarchy, following more closely Castells' idea that flows make spaces. The GaWC interlocking network model (operationalized as producer services firms' locations) is the "analytical means for studying cities in contemporary globalization" (43).

In *World City Network*, Taylor and Derudder provide a fascinating and important portrayal of globalization's geography in the opening half of the 21<sup>st</sup> Century. For me, two of the most interesting sets of analyses involved their conceptualization of a global city's 'hinterworld' and

their distinction between 'intensive' and 'extensive' globalization, both of which are creatively and persuasively operationalized in their firm/city network data. Of course 'hinterland' is a concept of longstanding in geography and urban sociology/rural sociology, and it refers to the influence of a city or town as a source of services for its surrounding proximate area. (Rural sociologists determined boundaries between towns' hinterlands by the scope of newspaper circulation and even by inspecting wheel ruts left by cars turning onto the highway from farms in the surrounding countryside.) Hinterworld extends the concept to a global level, defining it as "...the distribution of the service connections that underlie...[a city's] world city formation," and their operationalization is based on the relative strength of the producer service connections between all pairs of cities in their data for their 152 most connected cities. Their specific measure controls for the overall global connectivity level of each city dyad by using the residuals of an OLS regression that predicts the connection from measures of overall global connectivity levels of all the cities. Thus a city's predicted connection score is subtracted from its actual score, yielding the relative strength of the connection between each pair of cities. (This is a similar measurement strategy to that used for "overurbanization" in research in the 1980s and more recently used by environmental sociologists to measure well-being relative to levels of carbon emissions.)

The results are quite interesting. In general, the most connected world cities, such as New York (the 2<sup>nd</sup> most connected city in their data), do indeed maintain strong relations with other global cities worldwide, but even somewhat less globally connected cities such as Los Angeles (18<sup>th</sup>) has much weaker ties with other global cities. The top 10 connections in New York's hinterworld are with Abu Dhabi, Beijing, Boston, Frankfurt, Hong Kong, Houston, London, San Francisco, Vilnius, and Washington, whereas all of Los Angeles' relative hinterworld top 10 are cities in the United States. Taylor and Derudder describe New York's relative hinterworld findings as revealing strong patterns of both 'Globalism' and 'Localism,' and they would describe Los Angeles' pattern as revealing a strong Localism bent. (London, the most connected city overall, has exclusively global connections in its top 10 relative connections.) An example of the substantive significance of such findings is that the pattern for Los Angeles shows that in spite of its quite high level of overall global connectedness, its producer services firms' relations are even much stronger across the United States than this would suggest.

Taylor and Derudder deploy principal components analysis in Chapter 7 to pry into how the world city network is configured as a by-product of the region-building efforts of producer services firms in pursuing their goal of profitably servicing capital. Though the exercise replicates a study published earlier with somewhat older data, it is worth mentioning that they find that two general types of globalization are generated by firms' siting practices across the world's major cities. They label these "extensive globalization" and "intensive globalization," with the former driven by the

world-city making processes that accountancy and advertising are compelled to pursue, and the latter is centered on law and to some extent management consultancy. Financial services loads high on both components. But it is the key dyads in each component that justify their labels. Intensive globalization of the world city network is centered in city dyads that involve pairs of very globally connected cities—leading cities in the world-system's core plus China (e.g., London-New York, New York-Hong Kong). Extensive globalization is represented in firms' place making processes that link the core to the semi-periphery (e.g., New-York-Mumbai, London-Mexico City). And, second tier U.S. cities (in terms of overall connectivity levels as nodes) are primarily configured in intensive globalization, helping to explain why cities like Houston and Boston have been shown as surprisingly 'under-connected' in other research.

With many more theoretically compelling empirical findings sandwiched in the roughly 200 pages of Taylor and Derudder's new edition of this book, this is an important resource for anyone involved in research on globalization in relation to cities, and it is highly recommended for students studying the political economy of large scale social change in the contemporary world-economy. It has a few minor small annoyances and disappointments. Perhaps it was too far beyond the scope of the book's mission, but I would have liked to have seen more conceptual discussion comparing the GaWC producer services network data set with alternative measures of the network that are frequently used to map and analyze the world city system. In particular, I would think that the business traveler network data that Derudder and his colleagues have often used is a reasonably good proxy for the flow of capital from place through space—a good way to identify key hubs in the world economy as well as other network characteristics. This could have been developed in a discussion of how best to identify key nodes in Castells' global flows. Taylor and Derudder make a strong case for producer service firms' location strategies as key, but one could at least make an argument that business class air passenger flows offer a plausible way in. And overall passenger flows certainly get at other dimensions of what it means to be a 'world city' as they acknowledge early in the book. Covering this conceptually plus providing some discussion comparing the books' findings to comparable findings from one or more other approaches would have protected me from disappointment.

Small annoyances include the absence of an alphabetic index listing the 152 most globally connected cities with their two-letter abbreviations that are used in the scores of cartograms that are salted throughout the book and used to illustrate the geography of the various analyses. The only place in the book that I could find the codes with the city names was the label for Figure 5.1, the first cartogram, where they are all listed but in order of their overall connectedness score rather than alpha-ordered by city name. Thus for geographically naïve readers such as me, identifying the name of the city appearing in the middle bottom of their cartograms and labeled "CS" seemed

like an unnecessary hassle. There were also some unlabeled figures in chapter 7 (Figures 7.25a-l) that left me wondering what part of the text each was supposedly illuminating.

These small quibbles notwithstanding, Taylor and Derudder's second edition of *World City Network* is a crucial resource for anyone wanting to understand globalization in relation to world city formation processes. It is engaging reading, the arguments are clear and compelling, and the empirical findings are convincing as well as pertinent. Many readers of this journal will want to have this book in their nearest library, if not on their own bookshelves.

## Michael Timberlake

Department of Sociology University of Utah timber@soc.utah.edu

https://faculty.utah.edu/u0269040-MICHAEL\_F.\_TIMBERLAKE/research/index.hml