Global cities with Chinese characteristics

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ABSTRACT

Global cities are relatively central nodes in a worldwide hierarchy of urban centers. In recent years several Chinese cities have begun to participate as more central players in this global network. While cities atop the global hierarchy of the world's urban places attract wealth, glamour, and prestige, they are also said to be socially polarized to a greater degree than other cities and to attract international migrants disproportionately. The recent ascendancy of places like Shanghai, Beijing and Guangzhou raises questions about the global city formation practices that have led to this apparent "success" and to questions about the social consequences of achieving global city status in the context of the rapidly developing transitional Chinese economy. It also raises questions about the ability and commitment of the local and national governments to deal with the concomitant challenges to social harmony.

Introduction

Since the mid-1980s, the idea of the "global city" (or "world city") has increasingly been the subject of scholarship aimed at understanding the relationship between globalization and urbanization (Friedmann, 1986; Sassen, 1991). It has also drawn considerable attention from city-based political and business leaders concerned with promoting the cities in which they live and have material interests. Global cities analysis (GCA) has shown that cities are nodes in global networks through which flow commodities, information, capital, and people. Organizations sited in metropolitan areas, such as corporations, communities, governments, and nongovernmental organizations, generate the supply of, and demand for, these flows. In many ways, globalization means an increasing volume, velocity, and scope of these network flows. GCA has also demonstrated that (1) the world's cities are, to varying degrees, integrated into the global city network; (2) this global network of cities is hierarchical, with some cities serving more central roles than others in these flow networks; (3) over time, particular cities may change their positions in these networks, with some cities becoming more central (e.g., Beijing, Shanghai, and Guangzhou) and others becoming less central (e.g., Boston, Buenos Aires); and (4) many of the social and political contradictions arising from globalization are starkly drawn in the world's most globally central

cities (e.g., Hall & Pain, 2006; Smith & Timberlake, 1995a, 1995b; Taylor, 1995).

The increasing volume of scholarly research on global cities over the last twenty years has influenced a wider public discourse, creating a "buzz" among those wanting to promote "their" cities. One easily finds examples of large urban development projects—both public and private—aimed at enhancing the global status of a particular city or helping it to become "globally competitive" (Wei & Yu, 2006; Wu, 2000). Even national governments have supported efforts to promote particular cities within their boundaries. It is not that governments and entrepreneur are actually influenced by the scholarship on global cities; rather they are motivated by the prestige of having their city appear in the top ranks of cities worldwide. Perhaps nowhere is this more evident than in China, where "[b]y the end of the 1990s, more than forty-three Chinese cities had announced plans to become global cities" (Ren, 2012: 12), and where the national government first promoted Shanghai's global city trajectory as the "dragon head" of China's post opening-up development story. This is equally true of China's other rising global cities. Thus, an unintended consequence of the scholarship on global cities has been to stimulate place-promoting projects in China (and elsewhere) that are deliberate efforts to raise the global status of cities like Beijing and Shanghai as part of a national development project.

Here we explore how global city formation practices seem to be transforming cities like Beijing, Shanghai, and those of the Pearl River Delta (PRD). While GCA pays some attention to intentional global city formation practices, until quite recently, it has taken as given a city's initial place in the global hierarchy as the

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unintentional by-product of historical legacy and the cumulative effects of relatively micro-economic market forces. In contrast, the rise of Chinese cities in the hierarchy of global cities seems to be the outcome of *intentional* global city-building practices and policies. After briefly introducing GCA, we explore global city formation processes in China, including its dark side.

Global cities analysis

Though the concept is indebted to earlier scholarly manifestations (e.g., Hall, 1966), the idea of "Global Cities" and "World Cities" truly captured the imaginations of urban scholars and city leaders soon after the publication of Saskia Sassen's *Global Cities: New York, London, and Tokyo* (1991). This book along with John Friedmann's, now classic essay, "The World City Hypothesis" (1986), set forth the basic elements of global cities scholarship. In short, the key assertions can be summarized as claiming that the world's major cities are integrated into a broader world economy which is capitalist, with key cities serving as "basing points" for capital. Moreover, *how* cities are integrated into the world economy shapes them in various ways, including their economic structure, the degree to which they are immigrant destinations, and the extent of economic polarization. GCA is sufficiently well established to have produced a number of findings upon which most scholars agree. These include the observation that these cities are interconnected in important ways, constituting a global system of cities that is hierarchical in terms of the degree to which each city is central to the entire network (e.g., Friedmann, 1995; Lyons & Salmon, 1995; Smith & Timberlake, 1995a, 1995b). We can also agree that global cities are (at least implicitly) competitive for dominance, or for centrality within the system of world cities (e.g., Friedmann, 1995). Somewhat more controversial is the contention that the global city hierarchy mirrors the world-system hierarchy of nations (Sassen, 1995; Taylor, 1995). Sassen (e.g., 1998: 197–202) suggests that the logic of the global city network is "deterritorializing" the world-system, but some recent research (e.g., Alderson, Beckfield, & Sprague-Jones, 2010; Mahutga, Ma, Smith, & Timberlake, 2010) find a continued close correspondence between global cities' relative placement in the hierarchy of cities and the hierarchical locations of their countries in the world-system. Taylor (1995) has argued that there are cyclical realignments of the two hierarchies.

Before returning to the discussion of GCA, we need to stress that we do not wish to anthropomorphize the city. Cities *per se* do not act, plot, think, scheme. Cities are sites of ongoing human activity and repositories of the history of this activity, activity that involves, for example, both cooperation and competition over what becomes of these places. And, the actors involved range from mayors and other political officials, to real estate developers, to voluntary associations of neighbors and labor unions, to public institutions such as universities, to directors of firms selecting sites for investment (c.f., Savitch & Kantor, 2002). When, over time, through the complex machinations of such actions, important firms end up locating relatively more of their important operations (e.g., headquarters) in particular cities, those cities become more central within the network of global cities. Key cities may also become increasingly important as global centers for other commonplace human activities: commerce, immigration, tourism, business travel, and consumption, for example. While some cities may have specialized importance, these activities are often spatially reinforcing, resulting in an uneven concentration of global city features in particular cities atop the world-wide hierarchy of cities.

GCA has matured and become more diverse over time. The first systematic studies of global cities focused on the ranking of cities within the global urban hierarchy and definitely had an Anglo-American bias (Godfrey & Zhou, 1999). Castells (1996) argues that networks constitute the new social morphology as information and communication technology (ICT) is reshaping the material basis of society, and that the global city phenomenon cannot be reduced to a few urban centers as Sassen originally posited in her seminal work on global cities (1991). Based on Castells' notion of "spaces of flows," scholars have undertaken the ambitious task of analyzing various networks that interlink cities globally. The work of Peter Taylor and his associates in the Globalisation and World City Network (GaWC) (e.g., Taylor, 2001) has become the most influential contribution to GCA since Sassen's (1991) paradigmatic work. Their work centers on how cities are linked through the organizational networks of producer services firms. This shift to examining relational data mirrors a broader shift in the social sciences from examining relations among static attributes to an analysis of flows and networks.

Second, new research has gone beyond mapping the global city hierarchy to asking questions about the processes creating those global cities (e.g., Derudder et al., 2010; Hill & Kim, 2000; Olds & Yeung, 2004; Wei & Jia, 2003). GCA is also increasingly marshaling evidence to test some of the early theoretical claims about the structural concomitants for cities of their centrality in the world system of cities. As Olds and Yeung (2004) argue, there remain many unanswered questions about how global cities emerge, with some arguing for a kind of Asian global city "exceptionalism" (e.g., Hill & Kim, 2000)—or that GCA is Anglo-Western biased. Recent research efforts have analyzed the specific mechanisms and processes of global city formation in developing countries (e.g., Bassens, Derudder, Otiso, Storme, & Witlox, 2012). An emerging body of work has attempted to capture the formation and functions of the relatively new global cities in Asia, adding a new dimension to the global city literature (e.g., Derudder et al., 2013; Olds & Yeung, 2004; Wei & Leung, 2005; Wei & Yu, 2006).

Third, early GCA interpreted global cities as by-products of capitalist restructuring, particularly the increasing "financialization" of the world economy (e.g., Sassen, 1991; Taylor, 2001). However, GCA has not been attentive to the role of the state (see Therborn, 2011), and nowhere is this oversight more important than in China. Scholars working on Asian urban studies have long argued that the role of the state in development policies, in general and relative to governing the market in particular, is crucial to consider in relation to the emergence of global cities (e.g., Ma & Timberlake, 2013). Thus, a key question becomes, what is the role of the state in intentionally promoting pathways to global city formation? The association between "global cities," power, and wealth has been as alluring to national leaders in emerging economies as it has been to local elites in specific cities. Many governments in Asia pursue the goal of becoming a global city. Singapore, Seoul, Taipei, Hong Kong, Shanghai, and Beijing have implemented a series of policies to remake their cities into global cities. Hill and Kim (2000) pointed out that Tokyo and Seoul are different from global cities like New York and London, mainly because of the role of the state. The function of the state varies geographically, and Asian governments promote the development of their leading cities by globalization, place promotion, and resource allocation. Asian governments also emphasize the development of high-tech industries, and global cities in Asia are often intentionally promoted as centers of innovation by the national government as well as local elites (e.g., Breznitz & Murphree, 2011).

Finally, in terms of the social consequences of global cities, the research tends to focus on social stratification, treating cities as points on a map (e.g., Liu, Derudder, & Liu, 2011), and scholars have not studied their internal areal features—particularly their spatial structure—in much detail. GCA often takes for granted that the command and control functions are concentrated in the central

business districts (CBDs), and therefore much of the observation of global cities is about these CBDs. While the notion of global city regions (Scott, 2001) helps us to understand the spatial organization of city regions, any real progress in research has been limited; although, the research on polynet fills some gaps in the literature (Hall & Pain, 2006) by extending the network analysis to the study of global city regions, it does not go far enough in pushing our understanding of spatial organization of city regions.

World/global city formation activities in China

The notion of world/global city *formation* makes explicit what is often taken for granted in global cities research, namely that there is likely to be a set of identifiable social, political, and economic processes underlying a particular city's centrality in a global system of cities. This is not to say that there is not a tremendous weight of geographic, geopolitical, and historical circumstances leading to the global prominence of particular cities—these are certainly important. However, recognizing this merely pushes back the question of why certain cities are more globally important than other cities with similar geographic and historical advantages. In the end, after identifying such pre-existing advantages of particular cities, more satisfactory answers have to do with the constellation of decisions and actions that key actors undertake on "behalf" of particular cities within particular historical and social contexts. People build and maintain cities, and people help to make cities globally significant. Global city formation is a political and economic process; one that is increasingly a self-conscious goal of local urban elites throughout the world, including both businessmen (with local interests) and government officials. Global cities have quickly moved from being objects of dispassionate scholarly study to being political–economic projects of local, national, and global elites in the social worlds of business, government, and civic life.

The process of urban place promoting is not new. There are studies in American urban history on how place-based elites have used their influence and power in efforts to boost the prominence of "their" particular cities (e.g., Cronon, 1991). Such growth efforts did not always pay off, nor do they always do so today. But, local business and political elites still engage in deeply competitive booster practices today, including using their influence to have public money spent on hosting mega-events like the Olympics, Worlds Fairs and Expositions, and mega-festivals (e.g., Gotham, 2002), or by promoting what might otherwise seem like irrationally excessive infrastructure development in the form of grand, new airports, highway systems, and public transportation networks (e.g., Janic, 2004). Sometimes these facilities are never utilized fully, providing the capacity to travel anywhere when very little demand actually exists, and sometimes they are used as novelties, without really contributing to economic development (cf., Glaeser, 2011: 244–246). Occasionally, these projects pay off, giving a city the capacity to compete effectively as sites for investment capital, locations for income-generating global firms, and serving as important infrastructural support for successful entrepreneurial endeavors.

In any event, boosterism today is almost always couched in the language of globalization and the making of global/world cities (Golubchikov, 2010; Paul, 2005). For example, you might hear community leaders argue that "in order to be globally competitive we must build a bigger, new airport." This has occurred in hundreds of cities around the world over the last twenty years, from Denver to Guangzhou. This is the same kind of language one could find in almost any contemporary city's master plan for transportation. It may be said that five rams saved ancient Guangzhou, but this will not be enough to make it a leading global city in the modern world-economy. The destinies of Beijing, Shanghai, and Guangzhou will be shaped by city leaders, national policy, and firms as these cities continue to move toward the centers of global flows of capital and the political economic networks controlling those flows.

The dramatic economic development of many Asian countries in recent years turned GCA to cities in China, South Korea, and elsewhere. Some of this research articulates with earlier debates about the roles of "urban growth coalitions" that push cities into competition for more prominent roles in this global hierarchy (Logan & Molotch, 1987; Rondinelli, Johnson, & Kasarda, 1998). Political and economic actors based in the emerging global cities appear to be keenly aware of how the context of "globalization" justifies putting public resources into making their cities more internationally competitive (e.g., Saito & Thornhley, 2003). If the growth machine theoretical framework is correct, we can expect to find that those elites who are pushing hardest to get public funding for global city-making projects are not necessarily motivated by altruism; instead, we would expect that they have an economic stake in growth – likely related to the benefits of controlling urban real estate for which there is an increasing demand.

National governments are involved in global city building efforts that are embedded in the matrices of state territorial organization and the process of state re-scaling (Brennerr, 1998; Golubchikov, 2010). National leaders see state-directed global city formation as part and parcel of national development, and they are unlikely to find local "elites" in the favored cities objecting to these policies (e.g., Jacobs, 2008; Ma & Timberlake, 2008; Wang, 2003; Wei & Yu, 2006). In China, for example, Wei and Yu (2006) found evidence of the state-centered efforts to make Beijing a global city through a number of initiatives, such as attracting and directing foreign investment, investing in a world-class central business district, developing Zhongguancun as "China's Silicon Valley, and preparing for the 2008 Olympic Games (see also Ma, 2010; Ren, 2012).

Clearly local resources are mobilized along with central government support in these global city-building campaigns, and foreign direct investment (FDI) is important as well. Shanghai attracted up to 15% of the country's total FDI from 1990 to about 2005 (Cai & Sit, 2003), making it a center for capitalist investment in both finance and manufacturing in the Yangtze River Delta. FDI is high in China's other most dynamic areas as well. In 2009, FDI totaled $25 billion U.S. dollars in Beijing, $42 billion in Shanghai, and $82 billion in Guangdong Province, representing 6.8%, 11.7%, and 21.7% respectively of total FDI in China. GCA suggests that these patterns are linked not only to economic prosperity for some, but also to growing inequality across regions as uneven development is likely to follow from channeling infrastructural growth and investment into particular metropolitan regions (Li & Wei, 2010; Yu & Wei, 2003).

The fact that the central government is heavily engaged in global city formation processes does not rule out the importance of inter-city competition for global city status amongst China's leading cities (Lai, 2012; Shi & Hamnett, 2002). For example, Wei and Yu (2006) describe some of this competition between Beijing and Shanghai – and Guangzhou (also see Breznitz & Murphree, 2011). It is clear that each city has certain advantages that it plays in the global city formation game. Wei and Yu argue, "Shanghai is favored by foreign-owned bank branches, and Taiwanese investors, who tend to keep low profiles, do not favor politically sensitive cities like Beijing" (2006: 385). Beijing is a politically sensitive city because it houses foreign embassies, regional headquarters and representative offices of transnational corporations. It has relatively small numbers of foreign-owned bank branches, but it houses more branch offices of foreign manufacturing firms – the major functions of which are to facilitate networking with the central government and to host executives from the parent firm while they "do politics" (2006: 384).

GCA has documented the recent dramatic rise of China's leading contenders, particularly Beijing, Shanghai, and cities in the Pearl River Delta (PRD). And, with the 1997 repatriation of Hong Kong, which was a British colony for over 150 years, China incorporated a fully formed top-ranking global city (c.f., Shin & Timberlake, 2000) according to most global city ranking schemes. Hong Kong's advantageous geographical location, westernized institutions, free port, and global business network have kept it the most competitive city in China, characterized by a strong headquarter economy with a concentration of high-end producer service activities (Jessop & Sum, 2000; Wang & Cheng, 2010).

More dramatic has been the rather sudden global centrality of China's new global cities. The central government's decision in the late 1980s to open up Pudong, a district of Shanghai, to foreign investment and trade provided the spark for Shanghai regaining its economic power after having declined in significance during the Mao Era. Foreign capital flooded into Shanghai, not only due to its economic base but also its extensive linkages with China's domestic economy (Wei & Leung, 2005). Since the early 1990s, the central Chinese government and the municipal government of Shanghai have made Shanghai the engine of the Yangtze River Valley and a major city in the world economy. Officials at all levels made explicit, concerted, and successful efforts to recreate Shanghai as a major global city and a global economic center; they were influenced by economists, city planners, and geographers in developing a proposal to the central government to open up Pudong (Shanghai Urban Master Plans, Shanghai Five-Year Plans, and numerous policy reports; see Cai & Sit, 2003; Wu, 2000; Yusuf & Wu, 2002).

Beijing is the political capital and center for national decision making in China. It has an unparalleled advantage in human resources, as it hosts the largest number of premier universities and research institutes in China (Breznitz & Murphree, 2011; Zhou, Sun, Wei, & Lin, 2011). Zhongguancun is China's largest high-tech park and known as China's "Silicon Valley." While the city is not a favored site for manufacturing activities due to water shortages and weak manufacturing capacity, Beijing is making great efforts to remake itself as a global city through its political capital, its high-tech industries, and its state-owned enterprises. Many transnational corporations, attracted by the political access and human resources it affords, have made Beijing the site for their China/Asian headquarters. Various research projects have situated Beijing's recent developments within an explicit GCA paradigm (e.g., Douglass, 2000; Wei & Yu, 2006).

As the "southern gate" of China, Guangzhou was a traditional trade city and is the economic, political, and cultural center of South China (Xu & Yeh, 2003, 2005). In the 1980s and 1990s, Guangzhou's role as "dragonhead" in the region was eroded by the rise of Shenzhen and the fast industrialization of other cities in the Pearl River Delta (Sit & Yang, 1997). Since the late 1990s, Guangzhou invested heavily in infrastructure projects and struggled to solve the problems of limited land resources and a crowded central city (Yang, Lin, & Gong, 2009). With the establishment of the Guangzhou Development District and Nansha Economic and Technological Development Zone, Guangzhou attracted some leading global firms, particularly in the auto, chemical, and electronics industries. In addition, by developing the Nansha port, Guangzhou intends to revitalize its seaport in competition with Shenzhen and Hong Kong.

China's rising global city status: Social consequences and challenges

Having established the fact that China has a number of important global cities, brings us to the question, what are the social structural concomitants of increasing global centrality? This is a question that global city scholars such as Sassen and Friedmann explored from the beginning, but it is not a question for the boosters—the business, civic, and government elites who are promoting their particular global city-building projects. They do not ask it because they often benefit from the increasing demand for the land they control, bringing with it higher rents, that they assume will follow from making a city globally prominent. Instead, they assume that global city formation is a good thing for all the people who live in those cities.

GCA disputes this assumption. For example, Friedmann's "world city hypothesis" (1986) argued that increasing social polarization within these cities (in terms of social inequality) is a necessary concomitant of rising position in the global hierarchy of cities. Global cities are home to both highly paid professional–managerial workers in the producer service firms that locate in these cities, and the low-paid, marginal workers—many in the informal sector—employed in jobs that make the lives of the wealthy more comfortable and more amusing. Sassen herself uses colorful language to describe the extreme polarization in places like New York and London. Global cities according to this view generate highly paid professional and technical employment, and very low-paid jobs in restaurants, custodial work, and personal services – including household workers and even "dog walkers" (Sassen, 1995).[1] Though not without strong criticism (e.g., van der Wall, 2009), the polarization critique of global cities must be taken seriously and explored carefully with empirical research that can better inform social policy. Indeed, Timberlake et al. (2012) find partial support for the notion that relatively more global cities are increasingly socially polarized in their quantitative study of U.S. cities.

There are fundamental forces underlying spatial fragmentation and social polarization. The process of globalization is characterized by the increasing mobility of capital and the restructuring of the global production chain. This is a process through which low-end production functions are relocated to developing countries to open the emerging market and tap the pool of cheap labor, while control and innovative functions are retained in advanced economies. The developed countries have gone through the pains of deindustrialization and job loss, and are trying to sustain their leadership positions in R&D and command and control functions, while the developing countries are competing vigorously to move up the global value chain and move their key cities up the global urban hierarchy. Neoliberalism has reconfigured the functions of the state from providers of public goods to development and entrepreneurial states, leading to state vs. state in global competition. Thus, we see global pursuits of innovation, the knowledge economy, advanced business services, the consequential rise of high-paying creative/innovative classes, and transnational corporation (TNC) managers in world/global cities. In contrast, the neoliberal turn of the state and the recent global financial crisis have hurt the working class and lower middle class sectors of cities, and these effects vary across city-regions and countries (Walks, 2001; Wallace, Gauchat, & Fullerton, 2012).

Similar trends can be observed in developing countries as well, symbolized by the fortunes of emerging global cities, which have

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[1] In many cases this underside of the global city economy is sustained by vulnerable segments of the population, particularly immigrants, many of whom may not have proper credentials. However, such "world city hypotheses" have not gone unchallenged. Critics include those who argue that these structural characteristics said to peculiarly characterize global cities are really the far more ubiquitous effects of globalization in general, with the accompanying deindustrialization of former centers of manufacturing under the Fordist regime. Hamnett (e.g., 1996) argues that these so-called global cities are indeed experiencing increased demand for high wage professional occupations, but there is, in fact, weakening demand for low wage work. According to this view, "professionalization" rather than "polarization" characterizes more globally central cities in the current international division of labor (see also Vaattovaara & Kortteinen, 2003).

become the sites for TNCs, the elite class, and new economies. Geographical dispersion of TNC manufacturing has been a central feature of globalization, and TNCs' branch plants in many developing countries tend to be territorially disembedded, and their global–local networks tend to be thin and dependent (Perkmann, 2006). This is evidenced by satellite industrial platforms in Central and Eastern Europe in the 1990s, the weak integration of local firms with TNCs' production networks existing widely in Latin America, and the dominance of quiescent or branch plant-like subsidiaries in the Asia Pacific region. TNCs tend to network among themselves forming "local" networks of TNCs, and this leads to network embeddedness without territorial embeddedness (Jensen, 2004; Wei, Zhou, Sun, & Lin, 2012). The mobility and bargaining power of TNCs across the global scale contrasts with the relatively fixed territories of local states, creating an asymmetric TNC-state relationship. Globalizing cities in developing countries therefore tend to be economically dependent, socially polarized, and spatially fragmented.

China has been seen as a prototype of the neoliberal turn in the global context, which has become the leading destination of global capital. China has embarked on an ambitious "Innovated in China" initiative, which includes making leading Chinese cities global cities, spearheaded by new CBDs and development zones (Wei & Leung, 2005; Zhou et al., 2011). As we have seen, while Hong Kong has long been a top global city, Shanghai and Beijing have soared quickly up the global city hierarchy in the past fifteen years. Guangzhou has gained in prominence as well, but to a lesser extent. GCA suggests that as cities rise in the global city hierarchy they will develop similar social characteristics; thus, we might expect that China's global cities will display some of the troubling aspects of global prominence that have been observed in places like New York and London, particularly given the erosion of some of the policies and ideology of equality that presumably characterized the country to a much greater degree before its reintegration into the capitalist world-economy. In no arena of social life is this more troubling, fraught with contradictions, and visible than around the issue of housing.

The housing crisis in China's global cities

China's global cities are among the most expensive housing markets in the world, and this is an outcome of multiple forces including rising demand, rising wealth, housing policy, and the vested interests of governments at the national, provincial, and local levels. Shortly after initiating its transition to a market economy in the late 1970s, China began reforming its welfare housing system to become compatible with the emerging market economy. Additionally, in 2003 and then 2007, the central government instituted regulations intended to define different types of property and corresponding property rights (Chen & Kielsgard, 2013). However, local governments, real estate developers, and speculators reaped immense financial rewards from land leasing and real estate development. This federally rampant land and housing speculation was undergirding a largely deregulated housing market that provided very little social housing, and the mechanism to ensure the poor's basic right to housing is still lacking (Chen, 2012).

In response, housing prices skyrocketed. For example, the constant quality housing price index for newly finished commercial housing in 35 large and medium size cities in 2010 was 2.5 times the baseline of 2000 (Wu, Gyourko, & Deng, 2010). The largest housing price increases were seen in the rising global cities of Beijing, Shanghai, and Guangzhou, as these cities became particularly strong magnets for investment and migration from other parts of the country. The average housing price-income ratio was 11.4 in 2000, but increased to 21.4 in 2009, and the situation is much worse for the bottom 20% for whom the housing price-income ratio

increased from 19.1 to 44. At the same time, even for the top 20% income group, the housing price-income ratio also increased from 7.3 to 12.6 (Yao, 2011).

The high housing price has caused considerable hardship for many people. Especially for those at the bottom of the employment ladder, many of whom consist of the "floating population" (i.e., migrants who do not hold household registration, or *hukou*, in the cities to which they have migrated). In China's emerging global cities, a large percentage of them are employed in the service sector. For example, in Luwan, one of the central districts in Shanghai, a 1% sampling survey in 2005 indicated that 51.6% of total commercial and service workers were among the floating population (Wang & Yang, 2011). Moreover, about three-fourth of the floating population were employed in the lower-end commercial and service sector.

Due to low income, these low-end service workers, most lacking *hukou*, must find very inexpensive housing. They have found various ways to cope. For example, in Beijing, they tend to rent living quarters in "urban villages" in the periphery of the city or in makeshift basement apartments not originally designed as living quarters. In urban villages, farmers build houses and rent rooms to migrants, and prices are cheap not only because of the distant location but also because the underlying land is still in rural ownership, not having been transformed to urban ownership (by the state). This land is thus prohibited from entering the formal market and remains under communal ownership, which means that the original resident farm families have collective property ownership rights. The basement structures mentioned above were built for emergency protection during war time or for storage, but most have become used for civil and commercial purposes as underground stores, hotels, and movies theaters. But low wage workers live in them as well. Such renters are popularly referred to as the "ant tribe" —*yi zu* or the "mouse tribe"—*shu zu*—(as they are living in very tiny spaces, often underground; Cook, Gu, & Halsall, 2013; c.f., Huang, 2013).

In some cases the migrants are recent college graduates (or students at technical schools who have come for certain kinds of vocational training); who have come to the global city to try to cash in on the greater opportunities than those in the towns or villages in which they have *hukou*. Tangjialing was such an urban village for college graduates in the suburban ring outside Beijing until the government demolished it in 2011. Here, the average living space was less than 10 square meters and the average monthly rent was less than 400 yuan (Lian, 2009).

Similarly, in Guangzhou, poor migrants also live in urban villages. But these urban villages are spread across the cities, not just in the periphery as in Beijing. For example, in 2011, there were 138 urban villages in Guangzhou accounting for about 20% of the total urban built-up area, but accommodating 70% of migrants and 40% of the total urban population (Lin, de Meulder, & Wang, 2011). Some of these villages are even located in the center of the city, where cheap rents attract not only poor migrants but also those employed as professionals for whom locating near the center is highly desirable but very expensive in the official market. Such villages usually have high density. For example, *Shipai*, an urban village in Guangzhou occupies 0.28 square km., but about 100,000 migrants live there.

Due to a different history and urbanization strategy, Shanghai has many fewer urban villages than the country's other global cities. But, here many of the floating population find shelter in old houses built before socialist China was established. For example, in 2000, of the floating people with lower level service jobs in the Luwan district, 71.6% were living in old houses built before 1949 and 66.9% pay a monthly rent below 200 yuan (Wang & Yang, 2011). Another adaptation seen in the city is group renting, this occurs when a landlord divides a normal apartment into small

cubicles to rent out, so that a three bedroom apartment of 100 square meters is made to accommodate 10 to as many as 20 renters (Gong, 2010).

The local governments in China's global cities have initiated various campaigns to clear out such living spaces of low income migrants, even while relying on them for the cheap labor they provide. Sometimes urban governments clear up these places for public safety reasons, and to improve a city's image. Another reason is to control the population size of the already overly-large cities. City government leaders somehow believe that after eliminating these cheap places to stay, poor migrants will leave the city. Of course these practices reflect the contradictory demands of global city formation in China; to a large extent, the rise of global cities is built as much by their ability to provide large numbers of low-wage workers, which would not be possible without extensive rural-to-urban migration. Moreover, since most of these worker-migrants lack *hukou* they are made socially and politically vulnerable, less able to organize and seek rights through legal-bureaucratic mechanisms available to official residents (see Schaeffer, 1949: 82–87). Yet, they, and the places they are forced to inhabit in China's global cities, are seen as an embarrassment, if not a hindrance, to global city aspirations.

The most common measure clearing migrant and other low-income areas is through urban renewal. Typically this means demolishing urban villages, relocating those official residents with *hukou* – sometimes to ostensibly "nicer" housing in situ but often in more remote locations, and leaving the migrants to their own devices. In Guangzhou, the government has launched its urban renewal plan involving a large number of urban villages (e.g., Qiu, 2010). The plan is to renew nine villages by 2010, 52 villages by 2015, and 138 villages by 2020. In Beijing, the municipal government announced similarly dramatic plans, targeting urban villages in which the size of the floating population was much larger than the number of official local residents (e.g., Zheng & Ou, 2013). Tangjialing, the urban village mentioned above, was one of those targeted for urban renewal and 50,000 residents had to find other housing (site visit and interviews by first author, 2011; also see Wu, Zhang, & Webster, 2013). For Shanghai, urban renewal mainly targets old houses built before the Revolution (interviews with public officials, 2011). As these places are renewed, poor migrants lost their inexpensive places to stay, and at the same time, even official local residents are displaced to new apartments in the periphery which many find less desirable. In her ethnographic study of the real estate development process in Kunming, Zhang describes this process of removing lower-income, long-term residents from more central locations and building high-end apartments for the newly affluent Chinese as "accumulation by displacement" (Zhang, 2010: 137–162).

Administrative measures have been taken to clear away the living space for poor migrants as intended or unintended outcomes. For example, in its twelfth Five-Year Plan, Beijing prioritized clearing out its underground living spaces as a means to control population growth. In one Beijing district, Fengtai, the government planned to spend 0.2 billion yuan clearing out underground living spaces (Wu, 2011). In as early as 2006, Shanghai instituted regulatory mandates to prohibit group renting. New regulations issued by the Ministry of Housing and Urban–Rural Development on February 1, 2011, began prohibiting widespread rental practices used to meet the high demand for housing from migrants to Beijing (Duan, 2012).

High housing prices are not only unaffordable for migrants, but also unaffordable for local residents. A state council directive in 2007 indicated that the central government had recognized that relying on the real estate market would not solve many city residents' housing problems, and that change was needed in order to take care of the housing needs of low income people. This finally led to China's ambitious plan to provide 36 million units of affordable housing during the twelfth Five-Year Plan (2011–2015), and to begin building 10 million units in 2011 (Wang, 2012). The government also began to promote public rental housing.

However, local governments, including those of the country's global cities, largely resist implementing this central government policy. A local governments' revenue base is heavily reliant on selling land and on the real estate tax, but increasing the amount of affordable housing means moving land and housing out of this revenue-generating stream. The land that local governments could auction off at high prices would become unavailable for this end, and it could also suppress housing prices on which the local real estate tax is based. Moreover, the funding subsidy from the central government for building this housing is far from sufficient to allow this plan to be realized. Even without having to provide affordable housing, maintaining the land-eating scheme of funding local governments is unsustainable for much longer according to some scholars (e.g., Wong, 2013).

As the local governments have been pressured to implement this policy, they have devised various ways to minimize their losses. For example, in global cities like Beijing, Shanghai, and Guangzhou, new public rental housing is usually located very distant from centers of economic activity, including jobs. This saves land at better, more central locations for high bidding prices, but it also creates a "spatial mismatch" for the displaced residents who now find it more difficult to commute to their jobs from their more peripheral, new residences. Moreover, the rent charged usually covers not only the operational cost, but also the building costs (including the land). The rent is usually not much cheaper than market rental housing – perhaps 20% according to some estimates (Jang, 2010). Additionally, migrants, most of whom lack *hukou* in the city, are not eligible for the new public rental housing. Therefore, officials often discover that once these housing units are completed, not many people want to rent them. The desire to live nearer to employment opportunities constitutes a strong incentive for resisting the literal marginalization that would result from accepting the new, distant, but "affordable" housing.

Conclusions

In this section, we will state several hypotheses about China's global cities that we hope future research will address and express our concerns for social polarization that we hope policy makers will consider. Of course one could argue that these processes are occurring in China in general, not only in its most global cities. But, GCA suggests that more globally central cities will experience these polarizing tendencies more intensely, even with other factors being held constant. Certainly, inequality in various forms is on the rise all across China, and there are multiple causes, as there are for any social phenomenon. Future research may complicate GCA conclusions, but taking into account other sources of rising inequality (e.g., Liao & Wei, 2012), GCA expects relatively higher levels of polarization in cities to the extent they are more globally central to the world system of cities. For example, pointing to data showing that inequality in housing prices in a less globally central city (e.g., Suzhou) is higher than in some more globally central city (e.g., Beijing), does not refute the GCA hypothesis. An adequate test will require systematic multivariate analysis in which all of the relevant factors are taken into account. Indeed, research has begun to explore such questions in other national contexts (e.g., Sanderson, Timberlake, Derudder, & Witlox, 2013; Timberlake et al., 2012).

As mainland China's global cities have climbed the global hierarchy in recent years, they have become more socially polarized. While this is also said to be true for the world's top global cities, the dynamics are somewhat different in China. In Shanghai and

Beijing, global city status has been an explicit goal of both the local and central governments, which have promoted development schemes that rely on foreign direct investment (FDI) in manufacturing and/or the support of key state-owned enterprises. However, such development has also depended upon a large supply of relatively low-wage workers, many of them disenfranchised rural migrants. In fact, the nature of polarization is conditioned by differences across cities in the role of the state (local and national) and the particular development path which is followed. Beijing's growth trajectory is dominated by its role as the nation's capital, which gives government officials more prominence than elsewhere and explains the preponderance of state owned enterprises (SOEs). On the other hand, Shanghai's trajectory is tied to a mix of transnational corporations (TNCs) and Chinese firms. Research on the nature of polarization must be sensitive to such differences across cities. Another important global city formation practice of central and local governments is sponsoring global events and grand construction projects in key cities aimed as much at global public relations as at generating self-sustaining, income-generating economic development.

Increasing social polarization in its global cities challenges the government's capacity to maintain social harmony. Friedmann (1986) was deeply concerned about the cost of running global cities, which has also become a problem facing China's global cities. Rapid growth has certainly created a new class of very wealthy Chinese citizens, but unless significant income gains are spread more widely among global city residents, the danger is that expectations will rise faster than the benefits of development. This may pose an even more severe crisis in socialist societies, which, unlike unabashedly capitalist societies like the United States, have had a longstanding official commitment to equality. This raises the question of maintaining social harmony in the face of rising social inequality. There seems to be evidence in China's cities of resistance to both the conditions of work and access to housing and land. Ren cites evidence in Shanghai of rising organized and passive resistance in response to housing hardship (2012: 129–130). According to Huang (2008), there are also signs of resistance to a business policy climate that seems to favor big projects, FDI, and SOEs while at the same time stifling local, smaller scale entrepreneurial activities that arguably would spread the effects of development more evenly. On the other hand, an argument can be made that China's most globally central cities are more likely to be subject to the influence of global norms of transparency, and they will actually be induced to counter polarization to a greater degree than relatively isolated locales.

Urban–rural dualism is underlying the social and spatial polarization of China's globalizing cities. Urbanward migrants in China are often similarly positioned in the urban labor force to transnational immigrants from Mexico to the United States, who take low-paid jobs, some of them quasi-informal. Like undocumented workers in the United States, many of these workers are made vulnerable by their household registration status. They may live with considerable housing insecurity, without access to healthcare, and unable to obtain the educational advantages for their children that cities afford the children of officially registered residents. Indeed, overall migration is quite high to China's most dynamic globalizing areas. In 2005, Beijing received nearly 7% of China's internal migrants, Shanghai more than 9%, and Guangdong Province (presumably primarily Guangzhou, Shenzhen, and Dongguan) almost 33% (Hao, 2012). Some of the "urban villages" found in Beijing, Shanghai, and Guangzhou provide concrete examples of the conditions in which some migrants from rural areas find themselves. Their existence contrasts sharply with the expensive villas, new gated communities, high rise apartments of China's new millionaires, creating a vivid image of social and spatial polarization in Chinese cities. It would be especially instructive to follow migrant families

who lose their places of residences when the bulldozers arrive. Where do they go? How do they cope? Moreover, with dramatic population aging in the country, the welfare of aging migrant workers has become another challenging issue for the Chinese government.

Chinese officials are certainly aware of the serious challenges raised by the various forms of social polarization that are made plain in the country's new global cities. Concern about preserving *hexie shehui*, or social harmony, in the face of rising inequality is openly expressed in Chinese Communist Party proclamations, in pronouncement by local and national leaders (e.g., CHINAdaily.com, 2007), and in the Chinese press, including English versions available on the Internet (e.g., Shuo, 2011). Chinese scholars are also tackling these issues in their research publications, including some appearing in English. For example, Li and Chui (2011) argue that the extreme relative disadvantage of rural–urban migrants is perhaps the biggest threat to social harmony, as migrants are multiply disadvantaged. They are disadvantaged as workers with fewer rights and less legal recourse to filing complaints; they are disadvantaged in terms of access to education and medical care for their children; and they are disadvantaged in terms of access to housing. Often these disadvantages stem from the *hukou* system of household registration, which prevents even long term residents from full citizenship in their destination cities.

It seems clear that (a) social polarization characterizes China's global cities, (b) government officials and scholars see this rising polarization as a threat to social harmony, which is highly valued in China (at least in official pronouncements), and (c) policy leaders are struggling to enact (or enforce) policies that will ameliorate sources of inequality, but they are doing so in the face of the powerful, recently released forces of quasi-market driven capitalism. In housing and real estate development, there is evidence that the lines are often blurry between managers of state-owned enterprises, government officials, and capitalist entrepreneurs (e.g., Zhang, 2010), rendering policy-making and enforcing actions by local governments particularly fraught with contradictions.

Key cities in China have quickly risen within the global city hierarchy according to various objective measures of global city status based upon large numbers of the world's great cities and looking systematically at their involvement in important global networks. As Beijing, Shanghai, and Guangzhou have become more central in global networks of business and tourist travelers, in the organizational networks of large multinational firms, and in networks of scientific exchange (see, Matthiessen, Winkel, & Find, 2010), they have also gained prominence in the imaginations of the world's citizens. It is no longer surprising to hear or read reports about Beijing and Shanghai describing these cities with the same tone of breathless excitement as New York, London, and Paris.

But, China's rising global cities are showing evidence of the dark side of globalization as well: rising social polarization, a rapid influx of new residents living in concentrated poverty and excluded from the benefits global cities afford more fortunate residents, and possibly rising levels of resistance—or social discontent. It is possible that the problems of polarization and discontent will be even greater in China's global cities than the world's other great cities, as a result of a household registration system and greater income concentrating effects of the global city-building strategies undertaken by China's government (e.g., SOEs, FDI, and expensive monuments to modernity in conjunction with policies hostile to entrepreneurialism at a smaller, arguably healthier scale). China has largely "socialized" the global city project by diverting public resources for place-promoting expenditures that have propelled particular cities up the global hierarchy. Given the rising social tensions in its cities, China must formulate social policies and devote more resources to ameliorating some of the polarizing social

consequences of its global city-building projects. If political policies and practices can help build the global city, given the strong capacity of the Chinese state, they should also be aimed at ameliorating the social problems that seem to accompany global city formation. To do so, leadership will need to overcome powerful structural forces within the country that have quickly generated significant wealth for a small minority of the Chinese population, many of whom are politically powerful or well-connected politically (see Schaeffer, 1949).

Acknowledgements

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