4 Recontextualizing theoretical knowledge of space and the local context of knowing

> Objects of reference are at once more particular and more general than the expressions used to designate them. (Sahlins 1985, 148)

4.1 Introduction

In the second chapter, I have deconstructed prevalent relational spatial theories developed from the European context, revealed the epistemic frames they build on, i.e., the fundamental premises for defining basic entities and their inferential relations. Each theory informs and affects our analysis and understanding of social reality in distinct ways. In the third chapter, I have delved into the classic discourses in Chinese philosophy to uncover the epistemic forms, rules and causal agents essential to the Chinese way of thinking of space relationally. Following the principles of CR, I see such features only as hypotheses or initial theory, which could be tested at specific analytical strata.

In this chapter, I attend to the theoretical spatial knowledge at the crossroads: traveling western spatial theories circulated and reproduced in China. Trans-local knowledge circulation and recontextualization is a defining figure of our time, as famously portrayed by Clifford, "the roots of traditions are forever cut and retied" (1988, 15). Marilyn Strathern contends that "the pluralist vision of a world of distinctive, total societies has dissolved into a post-pluralism one" (1992, 77), in which a sustained interchange and borrowing process takes place, whereby "elements cut from diverse times and place can be combined, though they cannot fit together as a whole" (ibid., 95). To examine the differentiated meaning constellation of the 'same' knowledge piece, one has to attend to the meeting points between knowledge of self and others, between competing representations, practices, and views of the world. It is especially true for understanding the concepts like 'space,' which transit between natural and social sciences and form part of the everyday language at different times and places. However, uneven relations – economic, social, cultural, technological, academic – and variations of their entanglements have inevitably

shaped conditions for knowledge circulation and recontextualization. Thus, the exploration of the re-contextual process of traveling spatial knowledge is necessary. It is not just to focus on the roots of the whole but also to "listen, then, to how the images of recombination and cutting work" (ibid., 95).

In this chapter, I examine the ways in which traveling knowledge of *space* is learned and recontextualized in the Chinese academic context, with the aim of revealing how *epistemic context* affects meaning construction locally. In particular, I attempt to uncover the types of traveling knowledge of space circulated in Chinese academia and the communicative conditions under which they are legitimated. In 4.2, I start with a summary of the 'spatial turn' in the Chinese context, fleshing out its prevalent thematic, conceptual, and methodological features. In 4.3, I examine how certain traveling knowledge of space is selectively adopted, mixed, and redescribed into Chinese empirical realities. In 4.3.1, the overt epistemic conditions in which recontextualization of *scale theory* occur are interrogated, i.e., the epistemic rules scholars employ to 'translate' and 'anchor' the traveling theories' original frameworks. In 4.3.2, I analyze the conditions of knowledge justification that have affected the construction and legitimation of selected pieces of normative spatial knowledge among scientists and politicians at the national level. Finally, in 4.4, I focus on the studies that describe and analyze social-spatial knowledge embodied by marginal social actors and those situated in structurally weak social sectors, following a more constructivist approach. These studies are examined as the 'most different cases' to reveal the covert or overt contextual epistemic rules that scholars apply in knowledge production.

4.2   The 'spatial turn' in Chinese academia

To discuss the distinct features of 'spatial turn' in Chinese academia, I draw on that of the western European version as a reference. The features are discussed in relation to the meaning constellations and the particular social, cultural, and political context in the 1960s. As elaborated in the last chapter, in western academia, the conceptual abstraction of *space* has been subjected to philosophical and natural scientific contemplations long before it entered the domain of social science. The term 'spatial turn' describes a transition of basic spatial understanding from territorial and static towards social and procedural. It also marks the reinsertion of 'space' and 'place' back into European social, cultural, and humanities scientific domains (see Löw 2015; Warf and Arias 2009).

It is necessary to split my discussion into two stratums: the empirical and the epistemic. On the empirical level, the territorial fixations of colonialism and imperialism have collapsed. Moreover, accelerated global mobilities and intensified connectivity – in communication and transportation systems, globalizing produc-

tion and consumption of commodities, emerging environmental and ecological issues, the proliferation of digital technology, and cyberspace – render container-like spatial concepts inadequate. Such tendencies have led to inter and intra-national social-material transformations, including uneven economic developments and diversification of spatial representations. These observable changes drive scholars to integrate social and spatial processes in their analysis. On the epistemic level, the spatial turn is scholars' logical response to the long-standing ontological and epistemological bias toward time within the realm of social science. According to Edward Soja, the spatial turn is "fundamentally an attempt to develop a more creative and critically effective balancing of the spatial/geographical and the temporal/historical imaginations" (2009, 12).

New spatial conceptualizations have thereby been developed to reform the prevalent conceptual model of absolute space (Euclidean, Cartesian, and Newtonian) – the dimensioned container or measures of extension – out of the modern era. Spatial research is unrooted from the positivist and universal epistemic ground. Spatiality is gradually conceived as manifold and socially constructed. Moreover, methodological challenges are upgraded. More dimensions (material, typological, representational, experiential, and so on) manifesting the diverse markings of social are unleashed, awaited to be integrated into the 'spatial.' These conceptual dimensions need to be bridged logically with existing categories in multi-paradigm social science.

Unlike in western Europe or North America, endogenic inquiries and debates regarding conceptualizing space remain underdeveloped in the Chinese scientific realm. Studies on spatial phenomena in China resume after the economic reform of 1978. The number of studies increased vastly since the 1990s when unprecedented social-material transformations arose due to nationwide economic reforms. No double, rapid spatial developments in China are interconnected with and, to a great extent, resemble the broader global occurrences. However, local particularities cannot be fully grasped by the imported traveling conceptual lenses. The following two quotes capture the widespread importation of traveling western theories and the lack of endogenous theorization within the Chinese social science realm.

> In the context of China's social development, which from the middle of the nineteenth century was marked by the confrontation of its civilisation with the attractions and dangers of a modernisation process approaching from abroad, Chinese scholars have reproduced constituent parts of Western sociology. This has been and still is unlike western sociology, which itself was part of its endogenic modernisation development the basic collective situation of Chinese sociologists, which they share with other Chinese intellectuals (Gransow 1993, 101).
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> From the 1990s onward, however, the development of sociological theory came to a standstill. According to a content analysis of Shehuixue Yanjiu (Sociological

Studies), the top journal in Chinese sociology edited by the CASS Institute of Soci-
ology, from 1990 to 2000, there were altogether 7 articles on sociological theory,
research method and the history of sociology, making up only 2% of all 341 ar-
ticles. Only 18 articles were empirical studies with a theorising intent, whereas
247 articles did not even have any theoretically derived hypothesis (Lin and Wang
2000, 43). This finding seemed to contradict the optimistic judgment in another
review, which posited an effervescence of sociological theory in the same period
(Liu 2002a). But the contradiction was more apparent than real, as "sociological
theory" in the latter review encompassed the then-burgeoning field of economic
sociology. The underdevelopment of sociological theory seemed to continue into
the first decade of the twenty-first century, as less than 1% of paper submissions to
the annual conferences of the Chinese Sociological Association directly addressed
social theory. (Chen 2018, 56)

Drawing on my observations in lectures, book releases, conferences, workshops,
and casual conversations, I see the knowledge-making conditions described above
as still valid. Most domestically funded spatial studies are commissioned and en-
dorsed by state representatives of different ranks, thematizing policy guidelines
about spatial planning and governance. Each discursive turn in the central and
provincial government's policy agenda has tremendous and immediate impacts
on scholars' thematic and analytical focuses. Scholars are often expected to of-
fer technological solutions or legitimations to existing policies or evaluate the im-
pact of policy-led development initiated by state representatives. In recent decades,
such discourses abound. They include the 'construction of ecological civilization[1]'
launched in the 18th national congress of the communist party of China in Nov
2012; the 'urban-rural integrative development[2]' launched in the third plenum of
the 18th Chinese communist party congress in November 2013; the 'national new-
type urbanization[3],' launched in the central conference on urban-related issues in
March 2014, as well as political rhetoric like the 'Chinese dream.'[4]

One widely shared and obvious fallacy is that scientific concepts are often con-
flated and confused with political semantics and discourses. Political concepts are
often deployed as keywords in subsequent research projects. To illustrate this, I
count the number of research projects sponsored by the Chinese National Natural
Science Fund[5], which entails the term 'national new-type urbanization' in their ti-
tles from 2008 to 2018. The chart below shows (fig.6) the number of funded projects

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1   Shengtai-Wenming-Jianshe (生态文明建设).
2   Chengxiang-Yitihua (城乡一体化).
3   Xinxing-Chengzhenhua (新型城镇化).
4   China Dream (中国梦).
5   The grant is issued by the National Natural Science Foundation of China (NSFC), an organi-
     zation directly affiliated with the State Council.

in semantic affinity with such political discourse. It peaked in 2015, one year after the policy release.

Figure 6 The number of funded research projects entailing 'national new-type urbanization' sponsored by NSFC, 2008-2018. (calculated by Xiaoxue Gao)
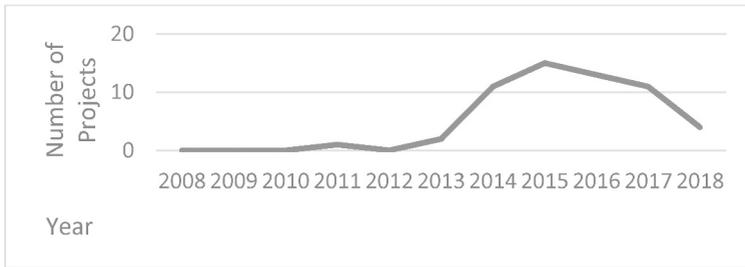
I would argue that the 'spatial turn' in the Chinese discursive context is more a *thematic turn* than a conceptual turn. This thematic turn addresses scholars' interests in the newly emerging spatial phenomena – like land-use, urban administrative system restructuration, and urban agglomeration. In the meantime, on the conceptual level, Chinese scholars have made unremitting efforts in importing diverse concepts, theories, methodologies from western intellectual realms. These analytical tools are further recontextualized into examining the empirical cases found in the Chinese context. This general tendency is summarized as 'western theories and Chinese realities' (Zhang 1992, 105). In practice, this imported knowledge is not always applied in a manner of 'conceptualization' or 'ordering framework.' To deploy a theory as conceptualization means to accept the prescribed way of forming ideas and notions about the phenomena studied. Instead, adopting theory as an ordering framework permits observational data to be used for predicting and explaining the empirical phenomenon, or seeing theories as "a way of ordering the relationship between observations (or data) whose meaning is taken as unproblematic" (Sayer 2010 [1984], 50). More often, they are deployed as a descriptor or a mere heuristic tool. Space – regardless of what it means – remains primarily the subject matter of positivistic disciplines like economic geography and urban planning. Theories and methods, particularly the qualitative methods from disciplines such as cultural and human geography, sociology, and anthropology, are greatly dismissed.

In the following, I explore the representative conceptual orientations, focus on the imported spatial theories that are well circulated and received. For an up-to-date and representative sample, I use '*urban*' and/or '*space*' (in Chinese) as keywords in the most well used academic database, CNKI (Chinese National Knowledge In-

frastructure), whose indexed scientific literature stretches across a wide array of publishing formats and disciplines in the Mandarin language. For space-oriented research written in English and addressing cases situated in China, I recourse to state-of-art review articles. I have ruled out the papers that fall into natural scientific disciplines (such as geology and ecology). It results in as many as 30,435 scientific items. The time frame of publications was set from 01-01-2010 to 01-01-2018. After the initial scan, I set the sample's scale to 200 items, the top 200 most cited articles, due to the upper limit for the amount of the papers one may analyze using the website's tools. There is a lag in citation date. The selected samples entail articles published mostly from 2010 to 2013. On average, the sampled items were cited 130.28 times. Thus, I consider it a valid pool for examining the dominant conceptual orientations of space deployed in the Chinese language scientific realm. The analysis results are organized and presented under 'thematic commitments,' 'theoretical tools,' and 'research methodologies.'

Regarding 'thematic focus,' my sampled studies agglomerate around a few key topics. The five most frequently employed keywords are urban scale[6], urban space[7], spatial structure[8], urban economy[9], and urban agglomeration[10]. In terms of the discipline, the samples fall predominantly into urban planning and geography. 67.5% of the papers and thesis are published in seven academic journals, among which two journals are from the planning discipline, and five journals are from geography. There are merely twelve items that fall into social and cultural science categories, consisting of only 5.7 % of the papers. The thematic tendencies I derive resonate with that from English language geographical studies, as remarked on by Fan et. al:

> Despite the growing numbers of English-language geographical studies on China in the 21st century, much of the work on China since the 1980s (by Anglo-American geographers) has been on China's economic geography (namely, regional development and foreign investment-induced growth); urbanisation and migration; economic reform-induced environmental change; and food and resource security. (C. Cindy Fan, Laurence J. C. Ma, Clifton W. Pannell, and K. C. Tan 2008, 673)

My sampled studies' research approaches are exclusively empirical and positivistic, short in theoretical and methodological reflections. A few articles draw on discourses from state policy to derive from their analytical categories. In this first group, scholars try to describe, measure and map out the geographical ordering

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6   Chengshi-Guimo (城市规模).
7   Chengshi-Kongjian (城市空间).
8   Kongjian-Jiegou (空间结构).
9   Chengshi-Jingji (城市经济).
10   Chengshi-Jiqun (城市集群).

of economic activities (i.e., finance, manufacturing industry, real estate, tourism) in a specific administratively defined territorial unit (a city, a province, an urban agglomeration or the entire state). In almost all the selected studies, the notion of space is deployed in territorial and normative terms. The performance of certain economic activities is measured quantitively within the bounded study area. Space is described by its territorial (quantity, size, and location) and normative-functional (residential, commercial, industrial etc.) features. Their correlations are described and measured through sophisticated metric models, through the aid of geo-computational powers of GIS, more so in geography than in the urban planning discipline. The study area's boundary, the land's classification, is retrieved from urban legislative demarcation and codes without exception. The spatial analysis serves as an instrumental tool for governance. Moreover, the studies typically conclude with policy recommendations. The evaluations, guidelines, and optimization plans are carried out to fulfill the objectives of germane policies in the designated study region.

Ten (5%) articles out of two hundred have attended to diachronic and dynamic interactions between social-economic variables, employing various quantitative spatial econometric modeling approaches. Favorable models include the geographically weighted regression model (see Lu and Zhen 2010), PSR regression model (Zhu and Cao 2011), systematic-dynamics mode, gravity model (see Zhu et al. 2011; Guo, Hu, and Jin 2012, 2012; Li and Li 2011), multi-agent system model (see Liu et al. 2010; Xue and Yang 2003) and so forth. Along with the 'big data fever' in spatial research, the social actors' – who inhabit and construct the city and villages – multidimensional subjectivities, are omitted. The urban ecology approach is employed in seven articles (3.5%), addressing the phenomenon of social-demographic and territorial segregation. It means the uneven distribution of the population contained in certain areas, measured by their social-economic attributes (i.e., income or migrant status), are captured. Administrative jurisdictions are adopted as the territorial unit of analysis (see Li, Wu, and Lu 2004; Lu 2004; Yang and Wang 2006; Feng and Zhou 2008). None of the authors questioned the Chicago school's ecological premises regarding human agency and the reductions of space to a socially homogeneous black box with a geographical location. These methodological measures, although underwritten by a Newtonian relative space concept, are fruitful. They came closer to describe the dynamic entanglements between the material dimension of space and plural social factors, reveal more complex autocorrelations between material space and systems of meaning.

Relative space vs. the urban-rural flux

A particular relative spatial perspective is widely employed in studies analyzing the relations between institutional restructuration and social and territorial change.

Three papers (1.5%) implicitly employ a neo-institutionalist perspective, perceiving urban spaces' configuration to be caused by changing distribution of governmental agencies and their relations (see Chai, Chen, and Zhang 2007; Zhang, Wu, and Ma 2008). The state administrative structure is not only employed to represent the institutional apparatus of the state but also a system of positioned agencies regarding implementing policies, regulations and undertaking spatial strategies, plans, and other social-spatial interventions. In a recent review on theoretical perspectives on China's urbanization in Anglophone literature, named *How Unique is 'China Model,'* Wang and Liu (2015) summarize the typical ways in which scholars relate social-spatial phenomena occurred in urban China to the conceptual framework of neo-institutionalism:

> First, the most salient feature of China's political institution is de-centralisation/centralisation and restructuring, which makes *the scale or central-local relation* a rather explanative view of China's urban processes. Second, the economic aspect is mainly characterised by marketisation and growth, which make the theories on neo-liberalisation and capital accumulation prevalent in studies of China's urbanization…. Under the Chinese context, in which urban resources (such as fiscal revenues and grand projects) are allocated proportionally to the level of a city in China (Zhao and Zhang, 1995; Fan, 1999; Chung, 2007; Chan, 2010). (Wang and Liu 2015, 102–3)

I can affirm such a tendency. The neo-classical and neo-liberalism lenses are adopted as prevailing analytical frames chosen to describe and explain dynamic macro and meso level social-space (territorial) reconfigurations. From my sample, I can identify one ostensible tendency: scholars favor the unitary economic or political-economic system over the plural systems of meaning or experience to probe into the restructuration of space. Normatively defined political jurisdictions dictate the definition of the city in scientific studies. Both theoretical perspectives – reduce space as a container or measurable homogenous surface as in the discussion in 2.3 – are, in essence, built on the Newtonian absolute-relative epistemic frame. The ontological premise shared among such scholars is *realism*. They conflate *empirical categories*, i.e., a normatively defined term (such as 'city') with an *abstract category* ('city' as a conceptualization grounded in analytical frames).

In the planning domain, *comparative case studies* on the state or city level are widely employed. Facing the challenge of conceptual incommensurability, some scholars affiliated with overseas academic institutions[11] tend to maintain epistemic forms and concepts, their sense relations, and the causal agent from the deployed theory. They extend the meaning of certain concepts (i.e., housing property rights) to the observable qualities of empirical referents in a Chinese context (i.e., housing

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11   Not affiliated with mainland Chinese institution.

ownership detached from land property rights), then extend the conceptual framework as "XXX with Chinese characters" (see Harvey, 2005; Lim, 2010; Peck and Zhang, 2013; Zhang and Peck, 2014). Scholars affiliated with Chinese institutions tend to de-ideologize the theories deployed, disregard the causal agents postulated in frameworks such as capitalism or neoliberalism, as the very use of the term may create its own references[12]. Instead, they employ theories in a heuristic manner, replacing some original epistemic forms (such as property rights, citizenship, or scale) and their corresponding causal agents intuitively with relevant Chinese concepts (such as house ownership, *Hukou*, or hierarchy).

Furthermore, a cultural turn remains marginal in social-spatial studies in China. In the field of sociology, Chen has recorded the vicissitudes of a broad cultural turn along with methodological reflections in the post-reform era:

> It was not until the 1980s that a group of Taiwanese and Hong Kong scholars initiated a more sustained and systematic reflection on the issues of indigenization. Here the major impetus came from Taiwanese social psychologists, whose studies in face (mianzi[13]), social relationships (guanxi[14]), affinity and destiny (yuanfen[15]) and other indigenous idioms and notions led them to question the applicability of Western categories, measurements and assumptions to the psychology of the Chinese people (Yang Guoshu 1982; Huang 1995; Yang Zhongfang 1996). In the 2000s, however, these cross-cultural and meta-theoretical reflections were largely abandoned. … An obverse trend, however, could be observed in mainland China. While playing a somewhat marginal role in the previous indigenization discourse, mainland Chinese sociologists came to assume a more prominent position after the century's turn (Qiao 1998; Qiao et al. 2001). (Chen 2018, 120–21)

Overall, my sample shows that there has yet to be any social theorizations that have translated traditional Chinese ontology or epistemological frames into well-grounded analytical frameworks. Those that do exist are not systematic enough to accommodate and be validated by concrete empirical analysis. In 2.1, I mention briefly that since the 1990s, along with the rise of the Chinese state as an economic and political player in the global arena, official political discourses are becoming more nationalist than globalist[16]. Against such a backdrop, more and more con-

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12   Adopting neo-liberalism or neo-institutionalism perspective in analyzing spatial transformation in China was also initiated by Chinese scholars from overseas.

13   Mianzi (面子).

14   Guanxi (关系).

15   Yuanfen (缘分).

16   More discussion on the nationalistic turn in state-led cultural construction since 2008 can be found in Soziologische Chinastudien und chinesische Soziologie im globalen Kontext: Geteiltes Wissen – unterschiedliche Forschungsperspektiven by Gransow (2017, 126-27).

temporary Chinese scholars pick up the thread advancing theoretical development from ancient indigenous philosophical thought, especially Confucianism. I want to stress here again that my point of departure in this research is *not* political but methodological. To paraphrase Ulrich Beck's comment on post-modernist theory, political discourses and arguments are eager to persuade us what is *not* the case but fail to say what *is* the case. A meta-argument about the dominant social ideology in China, 'Confucianism' and 'neo-liberalism' can be equally valid or invalid. What matters is how useful the set of concepts, epistemic forms, and causal agents are in helping us develop an insightful understanding of the formation of local social space under the condition of compressed modernity.

4.3   Spatial knowledge recontextualized and the social context of knowing

In this book, I take an epistemic approach, which means, I understand the method-ological challenges researchers face to have emerged (at least partly) from the *epistemic distance* between traveling 'theory (conceived by the attributor)' and the '*empirie* (perceived and understood by the researcher).' It means, the gap between the epistemic frames initially conceived by the attributor in one time-space, and that understood and invoked by scholars in examining empirical cases in a different context. It is an enduring and prevalent challenge for researchers who engage in cross-cultural and comparative research. These researchers face more difficulty when their subject matter's characteristics are unprecedented or if they cannot be, registered, observed, or understood (in part or as a whole) by existing theories and concepts. Here, I have broadly followed the sociology of knowledge tradition (already introduced in chapter 2), which has delved deeply into explicating why and how the *symbolic content* appearing in the mental context is social. I also refer to the social psychology of knowledge theories, which offers conceptual tools to detect the represented *social forms* that constitute the mental context.

According to social psychologist Moscovici (1988, 237), the adoption and appli-cation of a piece of distance and abstract knowledge – take the concept of scale as an example – would be achieved first through anchoring it to an existing social representation. In a similar vein, Valsiner argues that: "the social representation system of society at some historical period may selectively guide the researcher to seek general knowledge, or, through denying the possibility of general knowledge, let the researcher be satisfied by descriptions of 'local knowledge' (2006, 601)." It implies that the interpretation of learned knowledge is relative to the receiving subject's socialized mind, which can be detected as the knowledge encounters in-terface. The 'knowledge attributor' and the 'putative subject of knowledge' can be distinguished in the communicative process of knowledge (re)production. For the

analysis in this section, the concepts of 'anchorage,' 'misinterpretations,' and 'recon-structions' are especially useful for identifying extra-evidential features (cognitive principles or implicit communicative rules) deployed by the participating subjects as the active (socialized) mental context of knowing.

Following the discussions in chapter 3.3, I adopt an epistemic reading to the processes in which traveling knowledge is received by scholars dealing with Chinese cases. I refer to 'context' in the sense of mental (cognitive) and affective models held and actively mobilized by the assumed subjects of knowledge. According to van Dijk (2008), such mental and sensible models offer researchers the orientation in selecting and interpreting the knowledge. We researchers have tacitly defined our 'mental models' rather than certain objective features of the subjects' surroundings as *a priori*.

4.3.1   Hierarchy as epistemic context: scale theory re-contextualized

The previous discussion regarding the divergent ways in which 'spatial turn' unfold in the European and Chinese intellectual contexts suggest, knowledge does not diffuse evenly. Some pieces of knowledge travel fast and wide, get anchored into various local frames of knowing. Due to their epistemic distance, maybe translated or reviewed, their further application and development do not follow. In the fol-lowing, I take the *'scale theory'* as a 'boundary object' traveling from Europe or the West to the Chinese discursive field. The concept of '*scale*' in scale theory (among others like location theory and growth machine theory) has gained prevalence in studies of the post-reform social-spatial transformation of Chinese cities. How-ever, the meaning and analytical purchase of 'scale' have gone through a notable change in scholars' empirical applications, rarely noticed and discussed. A close-up comparative examination of original and recontextualized versions of scale the-ory will reveal the covert epistemic context and overt epistemic gaps at work. The analysis aims to shed light on the epistemic rules (as generative mechanisms) ap-plied in the local context of knowing space.

Briefly speaking, in its original context, the concept of 'scale' was coined and developed by geographers since the 1990s (see, e.g., Agnew 1997; Cox 1996; Swynge-douw 1997) in an attempt to decipher how inherited local, regional, national, and global strata relations among territorial units change through economic restruc-turing and state recalibration under the condition of global capitalism. Wang and Liu assert that when scale theory is deployed to explain the post-reform Chinese phenomena, "scale is generally conceptualized as the administrative structure or political hierarchy" (ibid., 103). When deploying it as an analytical framework, Li and Wu, like many, have dis-embed it from a neo-liberalist rooting. Due to the ostensible fact that "the economy is administered under persistent state interven-tion, which is a far cry from the orthodox theory of neoliberalism that suggests a

retreat of the state to make room for the market" (2018, 2). The scale is still deemed a critical causal agent in their works, it structures social actors' agency, and territorial change explains some emerging spatial phenomena. For instance, new territorialized governance units (e.g., the city-region) are conceived to be caused by the interactions between scaled (leveled) state entrepreneurs. Similarly, a sizable number of scholars opt for the concept of scale, to represent state administrative hierarchies in an absolute or relative sense, to explain the differentiated urbanization processes (see Smith 2014; Hsing 2010; Cartier 2005; Ma 2005).

In the following analysis, I focus on three selected works that have deployed and recontextualized the scale theory to study China's urban system's restructuration. In their applications, I trace and examine their operations of selection, reception, anchorage, interpretation, and (re)construction.

The conceptualization of scale in western academia emerged from the debate about the social construction of order since the early 1990s. Contested debates occurred regarding the politics of *re-scaling*, *scale jumping*, *scalar fix*, and their impact on (re)differentiation among various intertwined forms of socio-spatial organizations such as urban systems, citizenship regimes, state institutions, and capitalist economies (Collinge 1999). Against this background, 'scale' is primarily conceived as a predicate of 'territorialized social systems' and has extensive powers. 'Scaling' is then conceived as a territorial medium and an outcome of processes associated with capital, labor, and state institutional change (Peck and Tickell 1994). In a secondary analytical dimension, most studies associate the property of 'positionality' or 'network' with scale. For instance, the scale (relative positioning) of a 'territorialized social system' within a network can be differentiated and measured by the quantity of the dominant form of activity identified in this system. Economic activity is deemed a particularly important form for evaluating the 'scale' of post-capitalist societies in the time of globalization (see, e.g., Delaney and Leitner 1997). Under neo-liberalist epistemic rules, although the conceptual scope and causal power of scale are deemed varyingly across studies, by and large, it is conceived as "a foundational hierarchy – a verticality that structures the nesting, and with it, the local-to-global paradigm" (Marston, Jones III, and Woodward 2005, 419). Here, I cite one of the most well-accepted definitions of scale from Brenner:

> [A] 'vertical' differentiation in which social relations are embedded within a hierarchical scaffolding of nested territorial units stretching from the global, the supranational, and the national downwards to the regional, the metropolitan, the urban, the local, and the body. (Brenner 2004, 9)

Following this definition, the concept of scale represents *in the first order* to the extensive property of a bounded territorial unit in which social activities unfold. It most likely refers to the sized notions like 'state,' 'city,' 'body,' and so on in empirics. Under global capitalism, *following the second-order logic*, the social and territo-

rial significance of homogenous political and economic activities is evaluated and re-evaluated in the process of economic restructuring. From there, the researcher identifies certain political, economic, or social relations – like capital mobility, state regulation, production, and consumption – as a transversal variable to give the territorial units a vertical order. As the social activities are conceived isomorphic within a fixed territory, their magnitude subjects to a vertically differentiated calibration. Scale refers simultaneously to the relative positions and the *sum* of these scalar relations across differentiated magnitudes. In Brenner's definition, these relative positions are instantiated by the body, the local, the regional, and beyond, which offer little clues to the concrete objects they refer to in reality.

In this context, the hierarchical relations implied in 'scale' *as a whole* can only be defined from a 'top-down' standpoint. In other words, it presupposes a God-like methodological perspective (see Amin 2004). Marston (2005) has challenged the impartial observer assumption, i.e., the sense of scale is socially or scientifically constructed 'out there.' It leaves the perspectives and experiences of actual subjects on the ground to be dismissed or disguised:

> For once hierarchies are assumed, agency and its 'others' – whether the structural imperatives of accumulation theory or the more dynamic and open-ended sets of relations associated with transnationalism and globalization – are assigned a spatial register in the scaffold imaginary. Invariably, social practice takes a lower rung on the hierarchy, while 'broader forces,' such as the juggernaut of globalization, are assigned a greater degree of social and territorial significance. Such globe talk plays into the hands of neoliberal commentators, like Thomas Friedman. In his popular account of outsourcing (e.g., Friedman 2004, 2005), the standard trope – at least 'at home' – is to shift blame 'up there' and somewhere else (the 'global economy'), rather than on to the corporate managers who sign pink slips. In this fashion, 'the global' and its discursive derivatives can underwrite situations in which victims of outsourcing have no one to blame, a situation possibly worse than blaming oneself. (Marston, Jones III, and Woodward 2005, 427)

I now examine the conceptual form of scale and its associated spatiality when it is redescribed in explaining Chinese social realities. My goal is to unravel the epistemic models perceived as necessary in the scholar's (as the putative subjects of knowledge) mental context. This mental context is constituted by social representations, epistemic frames, communicative structure. I conduct this examination along two lines of inquiries. First, what transitive epistemic entities are admitted as referents in the conceptual framework of scale? Secondly, what spatiality is conceived to be subjected to re-scaling?

My examination focuses on three pieces of work. They have grounded their research in the political and economic structural imperatives, employ scale theory *systematically* as an analytical framework, take the concept of scale as the essential

causal agent in explaining social-spatial transformations in the context of post-reform China. The three pieces that I choose to examine here have all redescribed a part of scale's empirical content to administrative hierarchy. Their authors do not all have Chinese nationality. However, their empirical subjects are embedded in the Chinese social and discursive fields. They allow the local observables to inform the postulated causal claims [17]. Thus, these works have demonstrated the active involvement of *mental context* in reshaping the prescribed epistemic forms and rules in the original scale theories.

Before delving into each work, I briefly recapitulate the institutional context upon which the three pieces have stated their research problems and examinations. In the most general terms, since 1978, the Chinese central state has initiated a series of top-down reforms that de-centralized, sometimes partially, specific administrative and economic powers from central to local governmental bodies. Earlier studies address the impact of fiscal reforms since the early 1980s, particularly the tax sharing system implemented since 1994, which designated the revenue from land development and sales to the local government. Subsequent studies highlight the role of reform strategies in sectors like housing markets (see, e.g., Qian 2008). It is widely acknowledged that such policy reforms re-activate certain materiality into mobile, deployable resources and restructure the discretion of the local states and private actors in resource deployment (see Zhu 2004; Chien 2013; L. Wang 2014). In the meantime, scholars have observed local governments' increasing endeavors to promote local economies and construct the urban built environment expansively (see Oi 1992; Walder 1995).

The other common denominator is the gradual formation of a Chinese urban system with differentiated political and economic power. As illustrated in figure 7, this urban system comprises three normative categories of 'city[18],' 1) provincial-level cities[19] that are administered directly by the central government, including Beijing, Tianjin, Shanghai, and Chongqing; 2) cities with districts[20], referring largely to cities at and above the prefecture-level[21]; and 3) cities without districts[22], referring mainly to county-level cities[23]. The dynamic changes of such administrative units'

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17   I identify the works from Cartier, Ma, and Shen as qualified targets for examination, despite the diverse national affiliations of the authors. My criteria of selecting sampled studies lies in the systematic deployment of the conceptual framework. The studies who engage scale theory as mere heuristic tools and descriptors, are ruled out.

18   Shi (市).

19   Zhixia-shi (直辖市).

20   Shequ-de-shi (设区的市).

21   Diji-shi (地级市).

22   Bushequ-de-shi (不设区的市).

23   Xianji-shi (县级市).

relative positions and territorial forms constitute the selected studies' shared inquiries.

Figure 7 China's territorial administrative system in 2002. (Illustration from Ma, Laurence J.C. 2005. "Urban Administrative Restructuring, Changing Scale Relations and Local Economic Development in China." Political Geography 24 (4): 477–97, 479, fig. 1)
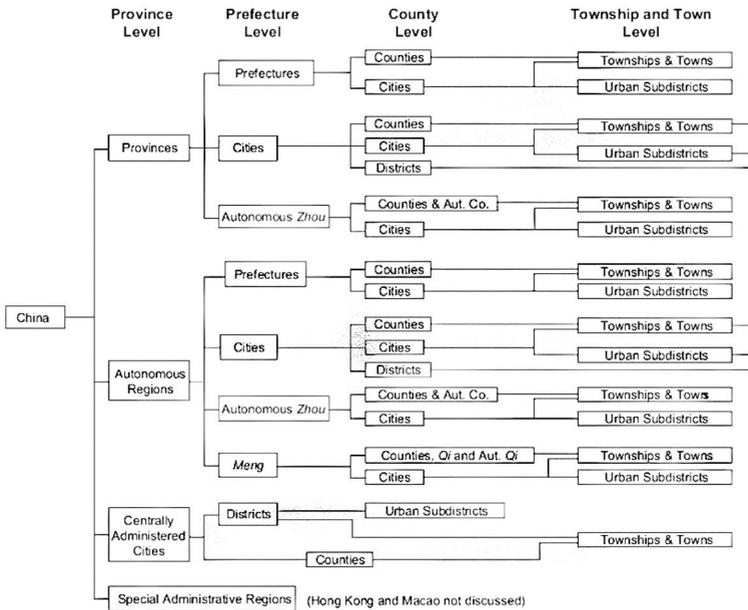
In this context, let me begin with analyzing Cartier's work City-space: scale relations and China's spatial administrative hierarchy (2005), which focuses on analyzing the re-scaling of the Chinese state in the post-reform era. She asserts that "in the normative terms of state administration, we refer to scales in terms of territories defined by political boundaries, i.e., towns, counties, cities, provinces or states, nation-states, and world regions" (ibid., 21). It means that Cartier has conceived scale as an extensive predicate of territory. She argues that, in the western context of the neoliberal capitalist state, the state exhibits minimal practices and hence does not equate to the national level, nor is it specific to one scale, leaving its social-spatial organization unexamined. Drawing on historical research of Chinese state administration, Cartier contends that the state organizational structure in the form of territorialized administrative hierarchy has existed throughout China's history. In her study, the state's overall hierarchical arrangements – an ad-

ministrative system constituted by territorial units as a whole – is admitted as the
empirical content of scale. In other words, in the first-order, scale is conceived as
a vertical attribute of the state (the sum of many vertically arranged, politically
bounded, sized areas).

Cartier has then ascribed scale – vertical arrangement – as the primary drivers
of change inside the state. These *scale-level relations* refer to the form and sum of
relations between inter-scalar territorial administrative units, described to be for-
mulated inherently and dialectically. By re-scaling, Cartier refers to:

> How actual processes work out through China's territorial administrative hierar-
> chy, from the national capital to provinces, cities, counties, and towns, and, in turn,
> how such political territories are constructed, mutable and dynamic. (ibid, 19)

According to Cartier, the urban system is perceived as a system of scaled territorial
units, whose territories are then subject to change by the principle of hierarchy. The
empirical content of territory is understood principally as an administrative prac-
tice, separating the area of the unit in question – the cities – from other cities. In
Cartier's words, "de-centralized powers are not simply 'fixed' at lower levels of state
administration, in cities and counties, but that they exist in vertical and horizontal
relations among cities, that is, in constant dialectical formation" (ibid., 26). What
triggers the re-scaling of state in the post-reform era for her is that "the state fo-
cused on a highly uneven strategy of rapid development in particular zones, cities,
and regions, first on the south coast, and then in the coastal region generally." The
strategy is deemed as a package of diverse political and economic empowerment
measures. As a result of uneven internal reordering, cities' role has been enhanced,
taking on a newly adjusted and specified vertical level. This level of governance en-
ables the state to "spur economic development while simultaneously maintaining
political control" (ibid., 25).

Laurence Ma (2005)'s work, *Urban administrative restructuring, changing scale re-
lations and local economic development in China*, focuses on the policy-led re-scaling
of urban administrative units of different ranks and their political and territorial
consequences. In particular, Ma examines how administrative units negotiate their
territory and political power by resorting to several state-issued institutional re-
form strategies regarding re-organizing administrative units. Such strategies in-
clude the system of "city administering county[24]," "converting county to the city[25],
and "annexation of suburban counties[26]."

Ma argues that for single local administrative units, the ranking system *as
a whole* is a given factuality. The central government "determines the number of

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24   Shi-guan-xian (市管县).

25   Xian-gai-shi (县改市).

26   Xian-shi-hebing (县市合并)

government offices it may have, the names of the offices, the number of officials staffing the offices, the ranks of the officials, the amount of fiscal resources and their allocation within the unit, and the decision-making power of the unit to manage and approve local and foreign investment projects" (Ma and Wu 2005b, 485). Yet, one's relative political position in this system, is conceived as the primary causal agent. Hence, the political activities within the city's jurisdictional-territorial boundaries constitute the empirical content of scale, subject to re-scaling. In other words, the political power and territorial resources between physically adjacent or politically adjacent administrative units are up for negotiation. For any urban administrative unit, when employing one of three state-issued strategies from a given position in the hierarchical administrative structure, the possible outcomes are as follows. The one situated in a relatively low position in the political hierarchy could opt for maintaining its administrative rank while subsuming one's territorial resource and political agency to a higher-level administrative unit. It means the city's territorial dimension is deemed an attribute subject to scale, not merely representing the static empirical referent. Due to the annexed territories, the higher administrative unit can promote this overall administrative rank, thereby obtaining more political agency. A given administrative unit could also opt for applying for promotion on its own, but its success rate is much lower. All three reform strategies privilege the higher-ranking administrative units in their negotiations with adjacent lower-ranking administrations. Eventually, due to territorial annexations, the number of administrative units changed, so are their relative political positionality. The hierarchical system as a whole was still reinforced.

The third work to be examined is from Jianfa Shen (2007), entitled *Scale, State and the City: Urban Transformation in Post-reform China*. Shen focuses on the relationship between the re-scaling of urban administrative units and re-organizing urban space in China. Interconnected with the concept of the 'city,' the concept of scale is also used in the first instance to *represent* the administrative rank of a city, which is essentially determined by the state:

> "Such a power structure ensured that the central government had the ultimate power in initiating changes and controlling local governments at various levels. The central government has been influential in the changes of city scales, i.e., the promotion of a city from one level to another in the administrative hierarchy, and urban territorializing, i.e., city boundary change, both before and after 1978." (ibid., 310).

For Shen, re-scaling means that "when a city is promoted in the administrative hierarchy from county level to prefecture level, vice-provincial level or provincial level which are three basic levels of government administration in China below the central government" (ibid., 309). Here, scale (administrative hierarchy) is taken as a relational attribute of 'city,' negotiated between local and central government. In

other words, the city's primary attribute is reduced to its positionality in the state-local institutional structure without pre-established territorial or social attributes. Thus, the city's territorial dimension is perceived as a result of, and also secondary to, its positionality.

In Shen's analysis, the series of state-initiated de-centralization policies – including the fiscal reform, the marketization of land, and the housing sector – are perceived as the triggers and leverages of re-scaling. According to Shen, the central-local relation is constitutive to a city's division and sharing of power on policy, personnel, and fiscal matters. In contrast, the inter-scalar relations involve the division and sharing of territory and fiscal matters. The second type of re-scaling is associated with the group of policies, including the "system of the city governing the county." It is read as "an example of re-scaling of territoriality or re-scaling of cities precisely" (ibid., 305). Similar to Ma's argument, Shen conceives territory as a secondary attribute of the city, result from the inter-scalar governmental negotiations. What marks Shen's analysis from Cartier and Ma is that he incorporates two pairs of relations – the central-local and the inter-local relations – to the concept of scale. They are deployed in explaining a city's positional change in relation to the state and territorial change in relation to adjacent cities, respectively.

Like the previous two studies, Shen also notices the nested territorial relations between cities of different ranks, i.e., lower-rank administrative units, such as villages, townships, counties, county-level cities, and urban districts as part of the territory of a higher-level administrative unit. Alternatively, from the perspective of a prefectural level urban administrative unit, aside from the central city area, other lower-ranking cities are sitting within its jurisdiction, submitted to its daily administration and planning. He introduces territorialization and de-territorialization as the second form of scale's analytical dimensions to explain such inter-scalar negotiation processes.

At this juncture, I can summarize the differentiated theoretical adaptations of 'scale' in terms of their subject and 'spatiality,' following the two lines of questions that I raised previously – 1) what empirical objects are admitted as the referents of scale? 2) what spatiality is conceived to be associated with scale and subjected to re-scaling?

The commonalities these three scholars share in their practice of recontextualizing scale theory can be concluded as follows:

1. The concept of scale has been anchored into an existing concept of hierarchy in the sense of administrative rank (*dengji*[27]). It is anchored either as the predicate of a whole institutional system (the state) or as an inherent attribute of a territorialized administrative unit (a city).

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27   Dengji (等级).

2. For a given spatial unit, its relative position in the hierarchical system is re-contextualized as an internal causal attribute associate with its political agency. It is unlike that conceived as an external one in the neo-liberalism model.

3. For a given spatial unit, its territorial attribute (the dimension of size) is re-contextualized as both the subject and result of scaling. In the neoliberal context, it is conceived as a substantial predicate.

4. The primary measure of scale is reduced to the political agency over economic ones.

The common practice of anchoring 'scale' to normative administrative ranks (*dengji* as leveled position or structure) reveals that the scholars naturally perceive 'hierarchy' to be ontologically real. It opposes the definition of scale from its original theorization under neoliberalism, in which ontological primacies are given to the enclosed, homogeneous territorial-social unit or place-like social-spatial units. The vertical dimension of scale (as level) exists on the secondary level of the conception, whose existence is dependent on the perceiver. In the Chinese context, the concrete territorialized administrative unit (e.g., city) subject to re-scaling is conceived primarily as a political agent, whose political power is associated with one's relative *positionality* in the hierarchical system of the state. Its territorial scope (*guimo*[28], size) are caused by one's *relative positionality* to the adjacent administrative units. Furthermore, the 'city' is reduced to a mere administrative unit. The heterogeneous everyday practices occurred in a city, and to a certain extent, the economic activities conducted by non-administrative actors are not admitted as the empirical content of scale. In sum, through my comparative analysis, we can uncover the commonality in these three scholar representatives' approach of anchoring, interpretation (reduction), and reconstruction (changing epistemic orders) 'scale' into the Chinese context. It exposed essential features of their contextual cognitive activities.

4.3.2 Asymmetric communicative forms and consensual truth-conditions: constructing and legitimating spatial terms

Chinese geographers and planners are not the *only* contributors to selecting spatial concepts and redefining their meanings in empirical applications. I would argue that, more often, scholars straddle between the legitimation criteria imposed by the domestic political actors (state-urban administrators) and that from the western scientific world (exhibited primarily in Anglophone scientific journals). To illustrate the truth condition under which spatial notions are defined in the Chinese scientific discursive field, I analyze two renowned scholars' presentation excerpts.

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28   Guimo (规模).

They were presented in the Expert Symposium on the 60th Anniversary of China's Planning Association held in Beijing in January 2016.

> The concept of *urban agglomeration* has appeared on several documents issued by the central committee of the communist party of China (the incoherent meaning implied is problematic). I don't mean that we can't just use this notion. [I find] it is not practical to construct another new term. But the problem now is how to make this concept more defined. We shall flesh out the necessary variables for defining the urban agglomeration, including maybe the density of the population, the parameter for measuring the intensity of the connection between cities, the level of economic development of a city. After doing that, (most likely, you would realize) the Beijing-Tianjin-Hebei (area) cannot be called an urban agglomeration. Some administrative bodies use the term to refer to all the physically proximate cities; some examples include even vast grassland and desert (the undeveloped areas) between cities. [Us]in the urban planning practice circle and academic circle should tease out anomic applications as such. The misuse of the concept is already ubiquitous (which creates lots of problems in practice). We shall define this concept more accurately and report it up (to the central party committee) [...] I would suggest the urban planning association be the body to define a fundamental concept. (Hu, 2016, translation added)
>
> China's unique conditions are our concept of the city is only accurate to the extent that it mainly describes an administrative jurisdiction. Such an area is [usually] much bigger than the actual built-up urban area. However, [I think] there is a complicated relationship between the administrative jurisdiction and functional urban area. The further can be equivalent to bigger or smaller than the latter. The problem lies in that we do not have the criteria nor conceptual framework for examing the *actual* urban build-up area; neither do we have any concept referring to the *functional* urban area. Instead, we have a myriad of ambiguous terms like the 'urban agglomeration' encompassing the city's physical and functional dimensions. Now we have around 280 urban administrative units, all of which are bigger than the *actual city*. Therefore, we cannot conduct any valid comparative studies across these 'cities,' nor can we do that with cities in other countries. The perilous consequence of using the extended concept of 'city' as such is that we exaggerate the urban demography, urban land, urban infrastructure, urban investment, and so on.
>
> Only when we draw the conceptual boundary of the city clearly, can we further define concepts like 'urban population,' 'urban land-use,' urban infrastructure,' 'urban economy,' 'urban ecology,' 'urban planning,' 'urban management' and so on, on the base of it. We can then understand, respect, follow the law of urban development. I used to propose that "the first and foremost scientific problem in urban studies is to find the correct concept." I [now still] mean that. I fervently hope that our coun-

try's leadership pay enough attention to this most significant and fundamental
problem in urban-related issues. (Zhou 2016, translation added)

In both excerpts, the scholar has reflected on the ambiguity of the mainstream
spatial terms at work in the Chinese scientific field and made proposals for clari-
fication. When we look at the notions (spatial representations) mentioned in their
narrative, we can identify one crucial political context – the 'fourth meeting on ur-
ban-related work' held by the central committee of China's communist party in late
December 2015. The italicized terms and narratives appeared firstly in the party's
conference report, released a month before this expert symposium. We can also
identify that such debates on the meaning of urban agglomeration are triggered
by the discourse set by Xi Jinping, such that "[the administrative bodies] shall take
urban agglomeration as the fundamental spatial unit, scientifically plan and con-
struct the city, in order to achieve compact, efficient and green development[29] (Xin-
hua.cn 2015)" Both Mr. Hu and Prof. Zhou are among the most-established scholars
in geography and planning circles in China, holding top council positions in scien-
tific associations. Neither of the scholars is content with the heuristic devices di-
rectly imposed, such as 'urban agglomeration' constructed by the politicians. They
call for another round of proposals and verifications from science to politics.

Nevertheless, neither seems to be in favor of overthrowing the term. For Hu,
scientists' role is to clarify the notion transferred from politics, in the sense of
identifying the real and material object(s) as the referents, designing an analytical
framework consisting of a set of coherent, diagnostic criteria following positivistic
principles. He proposes a set of parameters representing some quantifiable and
measurable attributes exhibited by some urban components to be admitted and
legitimated in the scientific realm. One can infer that Zhuo expects the Chinese
scholars to point out the caveats in politically constructed spatial terminologies, to
find solutions to fill the lacunas. He deems the notions like urban population, urban
land, urban infrastructure, urban economy, urban ecology, urban planning, and ur-
ban management as adequate regulatory and scientific semantics. They share *sense
relations* with, and are secondary to, the concept of 'city.' Thus, Zhou contends the
primary problems to lie in the ambiguous relationship between the *empirical refer-
ents* and the conceptual notion of '*city,*' which are not defined and legitimated by
scientists. Nevertheless, Zhou draws the epistemic premises to help identify and
connect the real object with 'city' as positivistic. He endorses the development of
diagnostic, quantifiable, and universal measurements, which enables international
comparability. He refers to the OECD's analytical angles identifying functional ur-
ban areas (OECD. and Organisation 2012). Either way, spatial schemata constructed

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29   In   Chinese: 要以城市群为主体形态,科学规划城市空间布局,实现紧凑集约,
      高效绿色发展.

by Chinese scholars, city makers, and other social actor groups on the ground are neither recognized nor legitimated in such a communicative norm construction process.

The discursive entanglement and asymmetric legitimating power between politics and science are also reflected in a review of the progress of economic geography research in China by Liu et al. (2011). The authors assert that the prominent feature of economic geography research in China is application-oriented and mission-led development. By application-oriented, Liu et al. refer to the tendency that administrators' practical economic-geographic problems determine the thematic research options. Geographers interpret the result of spatial analysis from a classic economic or political-economic perspective to give urban administrators and managers technical instructions in drafting land-relevant policy and plans. By mission-led, Liu et al. refer to the dominance of state-commissioned research projects. Like the notion of urban agglomeration, terms like major 'functional oriented zones' are proposed in the 11th *National five-year development plan* imply a spatial strategy to coordinate and regulate regional developments in terms of land use, economic activities, and ecological carrying capacity. It is also intensively employed, discussed, and developed in the scientific realm.

In sociology, Chen (2018) claims that state-building is one of the leitmotivs shaping sociological knowledge production since its inception in the 1930s. My observations also verify that political discourses are often reproduced in the scientific realm, even when politicians are not present in communicative situations. Attending a recent academic conference entitled *China's new urban agenda* in Manchester in November 2018, I heard several scholars characterize their analysis under the label of *ecological civilization*, a political slogan that the central government has put forward since September 2015. In the meantime, I have witnessed the difficulties such scholars demonstrate in narrowing down concrete and analytical dimensions of this term.

What rationale has been taken by Chinese politicians in constructing spatial concepts in policy discourses and developmental plans? What role does political power play in producing and legitimating spatial knowledge in the scientific realm and beyond? These questions are beyond the range of discussion in this research. I would argue for the salient and pervasive *coupling* of social scientific and political discourses. They are mutually legitimating in the course of conceptualization. Instead of interpreting this phenomenon merely as ideological or political oppression, I would instead read it as manifestations of a tacit epistemic culture.

A question regarding the implicit truth condition at work is then raised. In the context of the *central urban-related work conference*, the spatial concepts proposed in the policies intend to instruct further urban planning, governing, and constructing practices. Thus, they are *instrumental semantics* for making predictions and instructions, coordinating practices in various domains to solve practical problems. The

use of them must ensure practical consensus, as a useful concept's concrete referents have to be shared by perceiving actors to coordinate practices and bring out the actual efficacy. However, without a participatory process that allows social actors to propose, affirm and internalize the designated meaning, coordinated and consistent transition from idea to practice cannot be ensured, despite semantical consistency and alliances.

I would argue that – unlike the grand assumptions regarding participatory and *symmetrical* communicative form and *correspondence* as truth conditions embedded in the classic sociology of knowledge tradition (see Berger and Luckmann, 1966) – the communicative forms in the Chinese political and social scientific contexts are rarely built on inclusive, symmetrical social relations. Nor is truth legitimated by adopting the representation and correspondence principles. Here, by communicative form, I mean the "major 'building blocks' for the construction of reality in that they allow people to coordinate actions and motives" (Knoblauch 2013, 306), which gives shape to "styles of communication" (codes, formats), and "as any institution, are linked to legitimations" (ibid., 307). As indicated, in China, political and social science discourse is entangled in generating normative-scientific spatial knowledge in China. In this process, the social relations between scientists and politicians are most likely asymmetrical, as the main (if not the only) sponsor of spatial science (planning, geography) is the state. The criteria embedded in public funding shapes the kinds of knowledge being produced. In the meantime, the public is exempt from the legitimation process so that feedbacks from non-professional actors will rarely affect knowledge construction. I see such communicative forms as institutionalized and constitutive in producing spatial conceptualizations.

This claim exhibits a direct contradiction to the tradition of debates in western epistemology – that the study of knowledge (episteme) as opposed to mere belief or opinion (*doxa*). Moreover, although positivist methodology prevails in the Chinese scientific realm, semantics and their meanings are derived from political discourse. The practice of *conceptualization* results from a *consensus* between politicians and scientists, with the latter in a subordinative position. The condition is closer to what Habermas (1979) conceived in the discursive theory of truth. The difference is noteworthy that the *actual* actors drawing a consensus of truth with regards to key spatial concepts are not only among the most well-informed scientists in Habermas' sense, but also politicians and city managers. The political power is continually re-inscribed into scientific theories and conceptualizations through conventionalized communicative forms, imposing direct impact on the practices of constructing the city, citizens, and various new forms of spatiality (e.g., the special economic zones, the smart community).

On the other hand, the consensus on adopting concepts such as 'urban agglomeration' and 'ecological civilization' is made primarily on the semantic and discursive level. It is less on the real level regarding the generative mechanisms or on the

empirical level, regarding concrete, observable referents. The result is that concepts and conceptual plans do not coherently *represent* the observable phenomenon nor reflecting a shared understanding of reality.

4.4   Revised social constructivism and relational spatial knowledge on the ground

In the previous sections, I have shown that traveling theories from the positivist or structuralist traditions do not stay hermetically sealed when adapted to the Chinese context. The local context manifested as mental models – entrenched epistemic presumptions and communicative forms-could be revealed by comparing the original and recontextualized forms of knowledge and their inferences' modality. This section looks at studies that recontextualize social-spatial theories into studying the social space constitution in the structurally weak sectors in Chinese society. They attend to particular lifeworlds and/or fields of practice centering around marginal social groups (primarily subculture or subaltern groups). These authors have generally prioritized first-hand, unmediated empirical data in the field, using the methods like, i.e., participatory observation or interview, to capture the processes in which such marginal social groups (such as 'aboriginal' residents in urban centers, lesbian and gay community, rock-n-roll musicians, migrant women, NGOs) manage to construct a lifeworld, community, spaces of practice, or places. In these works, space serves merely as a heuristic tool. By looking at how key notions like 'structure,' 'practice,' 'subjectivity,' and 'space' are anchored and recontextualized, I hope to reveal the tacit forms of space knowledge they uncover on the ground.

The first example is the study of the 'space of housing,' which emerge from the negotiations and conflicts over the right to the housing between old native homeowners living in old city centers, the commerce-driven real estate developers, and administrators. Guo et al. (2014) argue that when looking into the interactions among these homeowners, developers, and administrators, one finds conflicts in the cultural norms they follow and the institutional norms. The tacit rules actors abide by in practice are against the formal norms and even against the legal rules. Thus, an institutionalism perspective renders very little purchase in explaining their practices and thereby the spatial manifestations. Guo et al. have also addressed the urban homeowners' changing perceptions and practices in the course of their resistance against the others. The transformation can be captured as, from "creating grievance narrative against eviction" "appropriating Mandarin discourses" to "learning about property rights," "unifying cultural elites and journalism," "sit-in protests," and "entering judicial proceedings as a defendant" (ibid., 111-119). They demonstrate the ability to reflect on and learn from the scenario, and

an increasing number of new meaning frames, constructing 'space of possibilities' to act and negotiate. In Guo et al.'s interpretations, the homeowners gradually gain awareness that 'the field of housing' – instead of a sphere of private actors and matters – is deeply rooted in the conflictual politics between local and central governance. They become aware of not only their rights and agency within the current legal framework but also the possible agency. They learn to adopt the forms of publicly justifiable discourses to make an effect in the public sphere. By acquiring factual, procedural and tacit knowledge from the political, legal, and media fields, they get to know, particularly the distribution of power, the rule of games in each field, and the conflictual interests among them. As a result, homeowners have gradually extended their agency to much wider fields and constructed a 'space of housing' constituted by an evolving arrangement of social actors, resources, and material entities.

The second example examines the emergent social spaces related to the 'South China Miracle' – a term often deployed to capture both the remarkable economic boom as well as the concurrent unprecedented urban change in south China since the economic reform. Studies adopting neo-liberalist perspectives tend to argue that a series of structural changes – including the de-centralization of the fiscal system – set off this great economic and spatial transformation. In their interpretations, these new structures allow Guangdong provincial administrative to gain the autonomy in setting its own budgetary priorities, or the state-endorsed special economic zone strategy, in which 'special policies, flexible measures,' transformed central-periphery relations. Such structural changes are also conceived to have resulted in the export-oriented economy in south China, home of the 'world factory.' They address the causal power of state agency in a single-sided manner, dismiss the role of the most commonplace form of social organization, tacit social-spatial knowledge embodied by actors situated in south China.

Here, I cite two authors who have engaged studies on the level of practice, analyzed the construction of subject spaces between state-making, trans-local economies, and local identities. Cartier, in her work *Globalizing South China (2001)*, presents a challenge to the existing literature of the reform experience by reading the success of social and economic capital accumulation in Guangdong through a lens of diaspora. She contends that South China should be read as a trans-boundary space, in which diasporic identities formed along lifepaths of high mobility are materialized into capital transactions and cooperation.

In her book *Gender and South China Miracle* (2001 [1998]), Lee also shows that normative rules (organizational principles of enterprises) are disjunct from rules perceived, understood and carried out by actors of her study. Lee uses a comparative ethnographic study on women workers rooted in two electro-manufacturing factories located in Hongkong and Shenzhen. The factories adopt the same technologies and are owned and managed by the same enterprise. Lee looks at the form

and principle of ordering 'the productive lifeworld' behind high performance and efficiency. Through examining the organizational structures, the interactions on the assembly lines, and the narratives about the self and others, Lee develops two pairs of synthesizing frames to capture the organizing principles of the two forms of lifeworlds. It is captured from the perspective of the manager and the woman workers: the 'matron worker' vs. familialism and the 'maiden worker' vs. localism. The internalized self-perception as 'matron worker' by Hongkong workers and as 'maiden worker' by Shenzhen workers is inextricably yet variably intertwined with their entrenched understanding of gender and class roles. Lee asserts that it is the "gender identities, grounded in women's lived experiences inside the factory, in their families, and in localistic networks" that have propelled the worker's agency, the associated patterns of social practices. Lee discloses it is the "local rather than national forces play more determining roles in defining the dynamics of production politics" (ibid., 163). In a similar vein to Cartier, Lee also sees the south China region as "made up of shifting institutional relationships among institutional arrangements and cultural practices." Therefore, she contends that "to reduce the layered subjectivities of social actors to their class status obstructs theorizing" (ibid., 163–64). In both cases, the institutional approaches exhibit minimal explanatory powers, as the normative structures (the causal agent inscribed in their epistemic frames) appear detached or are irrelevant in constituting the overt daily practices hence the social space in the structurally weak local context.

Aside from the non-dialectic, non-mutually constituting relations between institutional rules and social perceptions and the volatile and all-encompassing state orders, some ethnographical studies disclose the forms of space constructed by social actors embedded in asymmetrical power relations. In the study of urban spaces constructed by migrant worker NGOs in the Pearl River Delta, Gransow and Zhu have found that the day to day routines of NGO employers are strongly influenced by external regulations launched by powerful urban institutions, which leaves them "barely in a position to 'negotiate' urban spaces" (2016, 196). Instead of compliance or loud resistance, the NGO actors develop informal, innovative, and flexible forms of agency, such as "invisible growth," i.e., "what looks like a decreasing profile and less visible activities in public spaces is the deliberate result of producing small-scale, flexible, transient organizational spaces" (ibid., 191). In this case, the NGO actors' interpretations of the institutional regulations are different from that of the authorities. They are deprived of the agency in supporting migrant workers while expected to reproduce the authorized social rules. They also lose the agency to build a visible name to enable solid growth or allow their practices to be perceived as consistent for outsiders. Consequently, the urban space constructed by such actors is less material but transient and nameless.

Similar processes are also revealed in studies on the spatial practices of gay and lesbian social groups under the conditions of discriminative mainstream cul-

ture in contemporary China. In her book *Gay and Lesbian Subculture in Urban China*, Ho (2011) has depicted how cyberspace has become the main space in which interaction and representation of the gay and lesbian community take place. The spacing practices online exhibit a "non-confrontational approach" navigating state surveillance, such as developing an "a netspeak subculture," "subverting traditional language use" (ibid., 102). As a form of perceived reality, the practices that occurred in the virtual space has implications for both online and offline social experiences. The shared practical knowledge of spacing among these subculture group members come from the shared experience of navigating and avoiding institutional and cultural norms. Meanwhile, as general regulation changes in the cyber world, Ho also highlights that the content uploaded on the website is "self-censoring" and "increasingly commercialized" (ibid., 142). In this case, the value and meaning lesbian and gay groups ascribe to their social relations are divergent from the authoritative and commonsensical ones. The practical orders shared by this community is also hardly in line with the dominating social structures. The perceptual patterns of this group are also not reducible to class, age and gender determinants. Their practices are tacit, less embodied and transient, and the social space they construct rarely becomes materialized. Thus, the imposed normative rules help them to shape the form of their community space, in a reversed manner. Such forms of space have a rich meaning to those who constitute them and cannot be grasped by reducing its spatiality merely to informal or illegal terms.

In the works cited above, scholars have centered their analysis on the level of practice. Rather than locating social practices dialectically with social structures, socialization with institutionalization, and social positionality with the social agency, the scholars have placed the social subject into multitudinous, volatile, and inconsistent structures. According to Roulleu-berger, such a compromised theoretical position is placed within a type of "mosaic of situated and contextualized constructivism" (2016, 31). Subjectivity is conceived entirely differently here and is linked to the construction of 'them' and 'us' in a context of social stratification, an increase in social conflicts, and a crisis of confidence in the 'other' (ibid, 33). Although the 'space' is adopted primarily as a heuristic tool in these works – as a proxy for forms of spatiality, such as network, field, territory, or place – these studies revealed the situated social-spatial knowledge, and the less enduring, less materialized, and less visible forms of space.

4.5   Summary

In this chapter, I revisited some traveling spatial theories which are recontextualized in studying social-spatial phenomena in China. Following a characterization of the features of 'spatial turn' in Chinese academia, I carry out several focused

examinations on 1) the contextual factors that affect the selection, interpretations, and appropriation of certain spatial knowledge; 2) the communicative forms and truth conditions that affect the production of spatial knowledge in academia; and 3) the features of social-spatial knowledge embedded in structurally weak social sectors.

Taking the scale theory as a representative travelling spatial knowledge, I argue that in all three chosen works, 'scale' is anchored into the local concept of 'hierarchy' in the first order. Depending on the subject of their analysis (the state or the city), hierarchy is conceived as an absolute or relative predicate and causal agent to explain the changes of ranks and territorial boundaries of the territorialized administrative units situated in China. The primary postulation of a bounded territorial unit where homogenous social practices occurs, as well as the secondary postulation of scale as a constructed leveling indicator in the 'original' conceptualization, are flipped when recontextualized into study situated cities in China. Such contextual features are coherent with the second hypothesis I raised in 3.4, a vertical relational structure for thinking of space is deemed real on the ontological level.

Subsequently, by examining several events of knowledge legitimation, I argue that on the level of practice, the communicative structure for knowledge production, legitimation, and circulation in Chinese academia is asymmetric, entangled with the political power. The intersectoral communications are ordered primarily by principles of political hierarchical, clearly different from scientific norms in democratic, neo-liberalist political and economic regimes. To a great extent, the truth conditions for meaning construction and legitimation are aligned with the epistemic preferences of elite social groups. The production of spatial knowledge is affected by the asymmetrically distributed communicative agency between political and scientific fields. It has an immediate impact on the forms of spatial knowledge produced in science. They are often unanalytical, but heuristic tools exhibiting political ethos.

Finally, spatial studies following revised constructionism have shown the gaps between situated social-spatial knowledge and mainstream social norms, i.e., spatial planning codes, legislative regulations, nominative gender definitions, and local embodied knowledge, i.e., the practical understanding that marginal social group shares when orientate and coordinate their practices.