https://doi.org/10.1142/9789811292316_0011

Chapter 11

Dynamic Cities and Rigid Laws? Reflections on the Role of Law(s) in Creating Livable Cities*

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Cities play a key role in developing strategies towards making life livable for a large part of the world population and future generations. This chapter explores the potentials and limits of laws to improve livability in cities. Based on an understanding of cities as complex entities, it considers which regulatory tools may be most appropriate to initiate change and what typical barriers they have to deal with. The chapter discusses what laws in the legal sense, the identification and modeling of laws of self-organization as well as the analysis of individual value-based decisions can contribute to a better understanding and governance of continuously evolving cities. It also addresses the entanglement of all governance efforts with informality, the reproduction of class, gender and racial inequalities, and thus questions of social justice. Although there are limitations to legal laws in addressing existing urban injustices due to the idea of legal justice as treating everyone the same, laws nevertheless play a role in making cities livable. They create a framework of rules that limit negative externalities of individuals, which is essential in big agglomerations of people. The challenge is to identify

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where such rules are needed and how they may have to be adjusted in view of cities' dynamics.

1. Preface

This chapter aims for a *multi-disciplinary approach* to analyze the interaction of social developments and new technologies related to the role of law in creating livable cities. The authors of this chapter are eight academics from three continents and various disciplines, namely architecture, human geography, engineering, law, public health, sociology and cognitive neuroscience. We are grateful to the organizers of the 3rd UBIAS Intercontinental Academia for bringing us together in Singapore in March 2018 and in Birmingham in March 2019: Prof. Michael Hannon, former Director of the Institute for Advanced Studies at the University of Birmingham, Prof. Eliezer Rabinovici, former director of the Israeli Institute for Advanced Studies from Hebrew University of Jerusalem, Associate Prof. Kwek Leong Chuan, Deputy Director of the Institute of Advanced Studies at Nanyang Technological University of Singapore, Prof. Lars Brink from Chalmers University of Technology and ICA coordinator Sue Gilligan. During the workshops in Birmingham and Singapore we developed the first ideas for this chapter. We also thank Prof. Ernst Rank, Director of the Institute for Advanced Studies at the Technical University of Munich, for hosting us in a very stimulating environment for several days in October 2018 and again in July 2019, during which we discussed and worked on the chapter. The group has jointly reflected on *cities and the law* with the aim of stimulating a discussion about the tension between *rigid laws* and *dynamic cities*. The tension is characterized by the fact that on the one hand, laws are formal and fixed, though not unchangeable, while on the other hand, cities are dynamic, complex in nature and changing all the time. The main question this chapter addresses is: What are the potentials and limits of laws in making cities more livable?

Livability is a "fuzzy concept [...] that means different things to different people but flourishes precisely because of this imprecision".[1] We use the term livability as a placeholder for the characteristics of a city that its inhabitants value and regard as essential for their well-being. This is

obviously a very context-dependent or even individual evaluation, which at the same time depends on conditions that are out of control of individuals. That makes the role of laws, which by definition always are somewhat context-independent, in creating livable cities an interesting topic for discussion. The chapter tentatively concludes that there are limits to formal law and as such there needs to be an interplay of top-down approaches stimulating and supporting bottom-up initiatives.

2. Introduction

Global and societal transformation processes determine the 21st century. We experience ecological and social crises, which let societies face enormous challenges. Our current lifestyle endangers the livelihood for future generations. Although urban areas only cover 3% of the earth's land surface[2] they are responsible for 60% to 80% of global greenhouse emissions.[3] Historically, cities concentrated social, political and cultural transformations, including the recognition of women's, ethnic and sexual minorities rights. At the same time, cities can be spaces of poverty, unemployment and segregation and more broadly — social exclusion. With their local innovative capability, cities play a key role in developing strategies towards climate protection and reducing CO_2 emissions.

Cities are complex entities. In its common-sense meaning, complexity means no more than the opposite of simplicity, and if cities were simple, there would be no need for planning departments, urban studies programmes or consultancies for urban design. However, *complexity* is more than a synonym for being *complicated*. Weaver[4] distinguished between problems of *simplicity*, problems of *disorganized complexity* and problems of *organized complexity*. The first are described by very few variables and can therefore be solved with the help of relatively simple equations. The second involve a great number of variables, but since all of them behave in individually erratic ways, these problems can be solved by employing statistics and probability theory. By contrast, problems of organized complexity include a considerable number of variables, which are all interrelated and thus influence one another, leading to *self-organization*.

Cities fall into the category of organized complexity, as do most social phenomena. They change in terms of population size, the businesses and industries supporting their inhabitants, the built environment in which inhabitants live and move, the educational background and aspirations of these inhabitants, and many other respects. Changes in one variable impact many others, and even the rate of change can change as a result of technological innovations, migration flows, environmental problems and other factors. Complex social systems, such as cities, resist planning not only because organized complexity makes prediction of specific events impossible. Cities inevitably create wicked problems,[5] which neither have definitive formulations nor single-best solutions. Consequently, any planning decision is vulnerable to criticism.

In the face of a variety of large-scale, "wicked" problems in systems of organized complexity, laws have often come to be seen as an ineffectual instrument of public governance.[6] City planning and development is one example where visions for the future emphasize flexibility, constant change and the participation of different actors,[7,8] all of which seem to make a recourse to legal regulation outdated or even detrimental.[9] Yet, organized complexity does not mean that cities are best left without any rules and regulations; after all, self-organization is not the same as anarchy.[10]

This raises the question of what kind of regulatory tools may be appropriate for such complex social systems. *Positive coordination*[11] or *teleocracy*[10] is a regulatory approach that aims at specific goals and tries to shape the behavior of various actors in a way that advances these goals. Instruments used to induce the desired behavior include financial incentives or legal prescriptions. By contrast, *negative coordination*[11] or *nomocracy*[10] is a regulatory approach that limits itself to a set of rules that exclude certain interferences and interrelationships between actors but do not prescribe their behavior in the interest of specific goals. In other words, the first is more about self-*organization* and the latter more about *self*-organization.

The two views of regulation have very different implications for the role of laws in cities. Provided the first view, i.e. *teleocracy*, takes complexity seriously, it needs constant feedback on the effects that rules have on actors' behavior and the pursued goals in order to revise them. It

needs as much input as possible from various stakeholders as well as the capacity to make sense of it and continuously adjust regulatory tools. Considering that adjustments of rules are likely to impact stakeholders differentially and create a need for new negotiations, it is a huge challenge for such an arrangement to keep up with rapid change. And even if that were possible, the resulting rules would be weak regulatory tools precisely because people would anticipate their being changed again in the near future. Rules that constantly change are difficult to learn and respect.[10] The second view, namely *nomocracy*, by contrast favors laws in the sense of "a stable and simple set of abstract and general relational rules that enable society itself to be highly flexible".[10]

3. Legal Laws and the City

When pondering the role and rule of Law in shaping cities, it is important to note what a city is — and what it is not. Cities exhibit, as we have shown above, emergent behavior and limited central governance. This governance is partly through Law but mostly through other channels of social governance, which we will turn to later. Since Law and social governance are overlapping systems without a clear-cut dividing line, we will narrow the focus for now on a subset of Law, namely formal general Law. This is to say, we consider text which is produced and published by any societal institution with (a) some generally accepted form of moral authority within society, (b) sufficient backing by whoever controls the largest reservoir of violent power in this society, and (c) the intention to influence the behavior of a subset of its people, characterized by abstract properties.

This definition is broad enough to include a variety of institutions across different cultural settings, but our starting point will be promulgated statutory law in a parliamentary democracy. Given this basic understanding then, what is a city *not*? Cities are not generally considered makers of Law. They certainly do have some authority over (certain) local matters, which they exert through ordinances and by-laws. Yet, as the

terminology *by*-law suggests,[†] this authority usually (excepting city states such as Hamburg, Hong Kong, and Singapore) derives from higher-order state law. In Germany, for example, formal general law-making is divided without remainder between the 16 German states and the Federal Republic: Art. 70 (1) of Germany's Basic Law reads "The *Länder* shall have the right to legislate insofar as this Basic Law does not confer legislative power on the Federation." Cities, in contrast, are not even mentioned in German constitutional law, except where it determines the capital city to be Berlin. In this sense, cities have no "natural" or "inherent" power. Power is delegated to them by state or federal government, and those delegated powers have been rigorously limited by judicial interpretation. Cities are either subjects of Law, being addressed by parliament as though the city itself was an animate autonomous decision-maker, or they are objects of Law, being merely the quasi-inanimate context wherein animate decision-makers make decisions.

This distinction aligns with a traditional divide in continental law between public Law (being the law in vertical relationships, where the law-maker has authority over the law-subject) and private Law (being the law in horizontal relationships, where two law-makers are each other's law-subjects and bargain over their rights and duties).[‡] This divide means that some formal general Law — the "public" variety — treats "the city" as a subject of "the state" and imposes restrictions on it. For instance, the German state has enacted a law that severely limits the ability of German cities to grow beyond their established boundaries (Sec. 35 Federal Building Code, *BauGB*). It is upon the city's authorities to comply with these limits, lest they be sued in a court of law of their home state and, eventually, the Federal Republic of Germany. The effect of this law is evident to anyone who has ever travelled through Germany and wondered about the extremely compact settlements sprinkled homogeneously across the greenery, with few major metropolises (excepting Berlin and the Ruhrpott) in spite of Germany's wealth, which should exacerbate urban

[†] Etymologically, the "by" in by-laws does not derive from a sense of "subordinate" (as in "byway") law, but from an Old Norse word for town, *byr* (https://www.etymonline.com/word/bylaw).

[‡] Note that there is also "private" law in the sense of non-state-enacted law. Its authors rarely command much moral authority except the morality of reciprocity. ("I accept this rule because you accept it.")

sprawl (i.e., a decline of urban density).[12] The law is teleocratic as it shapes the behavior of various actors in a preconceived direction; at the same time it sidesteps the complexity that teleocratic regulation usually entails by insisting on the past as the precedent of what is acceptable in the present and future.

Other formal general Law — the "private" variety — treats the city as a context in which autonomous individuals pursue their well-being and need to be constrained in the interest of other city-dwellers' well-being. Its regulatory effect is nomocratic. For instance, Germany has a law that forces an owner of real estate to accept her neighbor's emissions ("gases, steam, smells, smoke, soot, warmth, noise, vibrations and similar influences") if they comply with the officially designated limits (Sec. 906 German Civil Code, *BGB*). It is upon one real estate owner to discipline the other, with "the city" serving as no more than a backdrop to the story. It is an assumed backdrop (since sub-limit immissions[§] will hardly bother neighbors in the countryside) but no more than that: The city is not treated as an autonomous agent in this relationship.

We therefore see, as was proposed earlier, that cities are not generally considered makers of Law. This does not deny that there actually is some law in the city which is enacted by city officials themselves (municipal law). It may be formal and general, but is usually derivative, i.e., enacted upon the authority granted — or left — to the city by the state. For instance, municipal authorities are allowed to levy some local taxes on businesses, determine the rules for seasonal festivals, or restrict access to public parks. All of these law-making powers are ultimately justified through a "chain of democratic legitimation" which conceptualizes city officials as proxies for state authority rather than truly autonomous rulers over their municipality. They may govern only within the limits and through the leeway left by the state, and their law may not even qualify as Law under the definition set out above, since cities do not wield violent power: The police force and military usually belong to the state, not the city.[**] At the same time, the city is a space where the implementation of

[§] While a substance is **e**mitted (released) at the source it is **i**mitted (entering) to another place.

[**] Although all of this varies across jurisdictions. For instance, most police departments in the US are genuine city agencies.

law and law enforcement happen. It is a space where the violation of law and human rights take place as well. The city can be a city of sanctuary and of injustice at the same time.

This should leave lawyers with a puzzling conundrum: If cities are neither autonomous law-makers nor holders of violent power, then why is "the city" nonetheless widely recognized as a significant actor and, in urban studies, as a central unit of analysis? How does the whole (city) become more than the sum of its parts (houses on the territory of an autonomous state)? If it is not just Law in the formal legal sense, then which other "laws" do city-dwellers command — or submit to?

4. Modelling the City

Thinking about cities in terms of complexity and self-organization suggests to look beyond formal law for rules and regularities that govern the city. Since a number of phenomena in physics and chemistry also display characteristics of self-organization, the notion of complexity inspired attempts to unify a thinking in terms of systems and their emergent properties across various disciplines.[13,14] These attempts fundamentally agreed on a number of implications of organized complexity, such as the impossibility of making specific predictions about single states of a system or its elements. Nevertheless, no theoretical consensus emerged on the definition of (organized) complexity or its relevance for understanding the dynamics of social systems in general and cities in particular.

This is not surprising once the notion of complexity is seen as a term that is used to *describe* an entity. It presupposes a distinction between elements and the relations between these elements, but it is indifferent as to how an observer may determine elements and relations.[15] This indifference is open to specification based on disciplinary preferences and habits. Physicists working on complex systems regard cities as examples on which to test general models of complex behavior and properties associated with complexity. Sometimes the idea is to discover surprisingly simple laws that govern various elements and their interrelation in cities. One example is the proposition that many urban measures are predicted by universal scaling laws.[16] It posits both sublinear and superlinear

correlations between a city's population size and the size of various urban indicators. For example, infrastructure and services are supposed to scale *sub*linearly due to economies of scale. These economies of scale are regarded as the reason for which cities are able to grow. At the same time, effects from social interaction, such as income or the number of patents, are predicted to grow *super*linearly with population size.

Theoretical physicists such as Geoffrey West thus conceive a city as a sprawling organism that is defined by its infrastructure.[17–19] West has studied examples of cities in the United States, in Portugal and in the UK. One of Geoffrey West's major arguments is that the pace of social life in the cities increases with the increase in the population size in the cities. West understands law, in the scientific sense, as general principles — power laws and scaling laws — that can be tested empirically. West recognizes that, regardless of where a city is located, all cities are governed by 'laws', both human-made and natural. Such laws are emergent properties of underlying structures and act as constraints for cities as systems. In addition, conventions that are rooted in traditions, cultures and other unwritten codes of conduct constrain the system as well. In the long run, laws and other rules are expected to evolve according to the needs of the members of society.

Although the general applicability of scaling laws for cities is still a contested claim,[20] the idea is clear enough: A scaling analysis suggests that the insights into the non-linearity of complex systems can be the starting point for a search for general nonlinear effects, which can be modelled to predict measurable properties of cities as expected averages, in the same way as properties of biological organisms and ecosystems. In this context, population size is not a causal force but a proxy aggregate variable that stands for general effects of intense interactions between co-located people.

In the same spirit of quantification, other approaches make use of computer simulations to grasp the organized complexity of cities and model disequilibria and dynamics according to ideas taken from physics.[14] For example, once similarities between spatial regularities in cities and fractals, i.e. objects with self-similar form at different scales, such as snowflakes, had been recognized, algorithms for generating fractals became the foundation for simulating certain spatial properties of cities.[14]

The approaches guided by physics share a view of cities that treats them like any other complex system. An obvious objection is that there is an essential difference between natural entities like snowflakes or ecosystems and cities, which is their being the result of human culture, intentions, norms and policies.[21] Consequently, interrelations between elements, however these are defined, are infused with meaning and in that sense very different from natural entities. This suggests a slightly different take on complexity, which stresses the difference between systems in which all elements can still be related to each other at the same time and systems with so many elements that their concatenation is inevitably selective.[15] Selectivity implies contingency, i.e. it makes visible that other selective concatenations would be possible as well. Therefore, there is an inherent connection between organized complexity and decision-making. Both individuals and organizations constantly take decisions related to the city. The two following sections propose perspectives for thinking about their respective roles and capturing their contribution to cities' complexity.

5. Individual Decision-Making in the City

As discussed above, cities are highly complex environments, comprising multiple layers of stationary and moving components. Humans live within the city and act as dynamic agents with multiple interactions.[22] One of the most important behaviors of all living organisms is decision-making. As humans we probably make tens of individual decisions every day. Many of these decisions can be regarded as value-based decisions, where the benefits and costs are weighed until a decision is reached. The process by which animals and humans perform individual value-based decisions has been studied extensively over the past two decades.[23] City dwellers need to behave within the environment with acceptable laws. It is thus an intriguing question what role individual decision-making plays in the creation of the complexity of the city.

Laboratory studies of decision-making processes can aid in answering this 'real world' question. Some individual decisions with huge aggregate consequences for cities happen infrequently, for example the choice of where to live. This type of decision indeed involves many factors related to benefits and costs, such as the ability to purchase a larger property in a

less expensive, but more violent neighborhood. However, as this is a relatively rare decision in an individual's life, the problems with quantifying the different components of such a decision, inferring individual parameters and predicting the future behavior of an individual are almost insurmountable. Rangel *et al.*[23] propose a computational learning framework that can be applied to reinforcement-learning paradigms, which are decisions that are repeated over and over again and thus allow optimizing individual parameters. An example for such a value-based decision is commuting and transportation within the city.

Optimizing transportation in a city requires that planners consider the city structure and its inhabitants' needs. The individual value-based decision-making concept used within this realm is the Value of Travel Time. Planners used to mainly focus on the economic aspect of time saving.[24] However, nowadays there is a realization that other aspects go into each individual's decision on transportation that can affect the entire system. For example, a project funded by the EU from 2017 to 2020, named "Mobility and Time Value" (MoTiV), provides a novel perspective on transportation by changing the orthodox view of optimizing the Travel Time Budget (TTB) that each individual allocates to their daily commute. The approach that MoTiV proposes takes into account multiple factors of individual well-being[25] to *wasted* or *worthwhile* time. It weighs various benefits and costs beyond time and money.[26] The project used a specially designed app named *woorti,* which collects data of commuters along three scales of "productivity", "enjoyment" and "fitness". The project leaders suggest that these data will allow city planners to consider richer individual-level data that go beyond the aspect of travel time when they further develop and optimize transportation systems.

Yet, transportation systems also change from below, without any initial planning, and individual behavior in transportation does not always adhere to existing rules and laws. It can occasionally act outside them and lead to a realization that new laws need to be drafted. An example are e-bikes or e-scooters as new modes of transportation. They have become very common in densely populated cities around the globe as they offer a highly efficient and cheap individual transportation. However, when these modes of transportation are not regulated, they may disturb the balance between individual utility and general public needs. New laws of the nomocratic

type are needed to regulate the use of these vehicles and to ensure that the balance between the rights of different commuters in the city is preserved and optimized.

Figure 1: Signs reminding commuters in Tel Aviv of new fines given to e-scooters and e-bike riders if caught on sidewalks.

An example of such new regulations regarding e-scooters and e-bikes are those imposed by the Tel Aviv municipality. These vehicles are not allowed on sidewalks (see Fig. 1) but on bike lanes and the roads. The introduction of new fines may change the delicate ecosystem of usage of different modes of transportation, since riders will need to incorporate the risk of an accident on the road versus the risk of a fine into their value-

based decisions. Interestingly, since these vehicles do not have a license plate, it is hard to keep track of them and actually impose the fine. The use of e-scooters thus illustrates the limited power that cities have as well as how they may use the power and ask the government to come up with new laws at the same time.[27]

Individual transportation is a prime example of how value-based decision-making theories, based on laboratory experiments, may be applied to real world examples and could contribute to creating laws and regulations that promote better well-being. Usage of optimization tools that take into account individual benefits could offer each individual an optimal mode of transportation, while cities and countries would need to create laws that adapt to these new transportation modes.

E-bikes and e-scooters are an example of low-emission, affordable individual modes of transportation. Hence they are often used by the lower income population as their investment costs are lower compared to cars and they do not require parking nor high maintenance. In Tel Aviv, they are in particular used by students and immigrants living in the southern parts of the city to reach their workplaces without being dependent on public transportation, which does not cover all suburbs properly. This is an example of how individual decisions can further social justice in the city by allowing the lower economic strata to move into other richer parts of the city despite a lack of public transportation. Yet, once the vehicles became very widespread calls to limit their usage began and eventually new laws were implemented. This points to the conflictual dimension of complexity in cities and the key role that questions of social justice play when it comes to their livability.

6. Social Justice, Difference and the Right to the City

On the one hand, individual decision-making doubtlessly shapes mobility patterns and many other social practices in the city. On the other hand, such patterns and practices are also shaped by the city and its complex formal and informal regulations. In addition to individuals, various organizations, including city councils and private companies, are involved in this mutual structuration.[28] At the same time, individuals can also be considered in their heterogeneity instead of conceiving them as value-

based decision-makers. This introduces a critical perspective on cities and their relation to social justice.

> "Corporate producers of space tend to define the public as passive, receptive and refined, fostering the illusion of a homogenized public, by filtering out the social heterogeneity of the urban crowd, with minimal exposure to the horrifying level of homelessness and racialized poverty that characterizes the street environment".[29]

Urban space is highly political and ideological, where law and lawlessness, formal order, and fluid informality happen. As politicized and ideological space, the city supports and reproduces class, gender, and racial inequalities. In this respect, it is where the disparities of normative rules implemented by law and everyday life take place.

The understanding of urban space and society as mutually constitutive is central to the notion of the right to the city.[30] Its revolutionary vision of the production of space, introduced by Lefebvre[31] in the book that took this notion as its title, is based on the Marxist analysis of production and articulates space as "not a scientific object removed from ideology or politics. It has always been political and strategic as there is an ideology of space. Because space, which seems homogeneous, which appears as a whole in its objectivity, in its pure form, such as we determine it, is a social product".[31] The idea of the right to the city became a flagship of the critical geography in the 20th century in its effort to overcome the alienation from the city produced by control of the state and capitalism.[32–34]

The city is "a man's most consistent and on the world, his most successful attempt to remake the world he lives in more after his heart's desire". Thus, the city is the world which man created, and, at the same time, the world he is condemned to live in. Therefore, the right to the city is more than an individual right to access resources, it represents the right to change ourselves by changing the city, which depends upon the exercise of a collective power over the process of urbanization.[34] The definition of "right to the city" aims to highlight the non-exclusion of any part of the society from access to urban life quality and benefits. The claim for the right to the city expresses issues related to urban development and the effects of political and economic crises. This claim demands a higher degree of democratization in the cities and more collective decision-

making processes based on the principles of solidarity, freedom, equity, dignity, and social justice.[35]

The concept of the right to the city is founded on the ethics of human rights, as initially defined in the UN Declaration, but does not form part of the human rights regime. It has been embedded in program documents of UN-HABITAT and UNESCO, and it also influenced the World Charter for the Right to the City, the European Charter for Human Rights and the City, as well as the Montreal Charter of Rights and Responsibilities. It has become an inspiration for communities across many countries.[36] Nevertheless, it is still considered a precarious and neglected human right.[34] As David Harvey argued, "To claim the right to the city (…) is to claim some kind of shaping power over the processes of urbanization, over the ways in which our cities are made and re-made and to do so in a fundamental and radical way."[37]

One of the criticisms of Lefebvre's approach to the right to the city was his primary focus on the working class. Purcell[32] suggests to go beyond it with a "variegated politics of identity and difference". That continues the seminal conceptual framework for the politics of difference developed by Iris Young,[38] who argued that "social justice in the city requires the realization of a politics of difference. These politics lays down institutional and ideological means for recognizing and affirming diverse social groups by giving political representations to these groups". Young[38] moves away from the redistribution mode of welfare capitalism and articulates five categories of oppression that can be applied to any group, namely exploitation, marginalization, powerlessness, cultural imperialism, and violence. If Young[38] focuses on social groups as objects of oppression, Harvey[34] adds the nature in cities, as it also has rights, stressing that "Just planning and policy practices will clearly recognize that the necessary ecological consequences of all social projects have impacts on future generations as well as upon distant peoples and take steps to ensure a reasonable mitigation of negative impacts".[34]

A recent turn in the "right to the city" approach suggests to consider not only aspirational rights but also rights which are "informally negotiated between communities (or individual actors) in the streets".[39] It is therefore necessary to distinguish between formal citizenship within the nation-state, and the exercise of urban citizenship through democratic

practice. Substantive practices of citizenship emphasize the difference between rights and the ability to enjoy and perform such rights. Substantive citizenship is acquired through[40] participation and enacted through participatory democracy.[41] Substantive citizenship can be exercised at several levels, one of which is the city. The right to the city signifies a societal ethics cultivated through living together and sharing urban space. It concerns public participation, where urban dwellers possess rights and cities — city governments and administrations — possess obligations or responsibilities. Civil and political rights are fundamental, protecting the ability of people to participate in politics and decision making by expressing views, protesting and voting. The exercise of substantive urban citizenship thus requires an urban government and administration that respects and promotes a societal ethics. It also demands responsibilities of citizens to use and access the participatory and democratic processes offered.[42] The formulation and materialization of a new political contract of social citizenship, recognizing and legalizing the rights of citizens to participate fully and actively in political and civil society form the *sine qua non* condition for the expansion and deepening of democracy. Such a widening of citizenship rights becomes even more important for the promotion of democratic governance of cities: cities and citizenship are ultimately the same subject.[43]

7. Communities, Laws and Urban Planning

Public participation in urban planning is one of the key instruments of social citizenship in a city. So to what extent is law required as an instrument for the creation of livable urban space? Abdou Maliq Simone,[44] who studied informal settlements in countries in the Global South for three decades, emphasizes the role of creativity and self-organization which are far removed from formal laws. He argues that in informal settlements "provisionality is being engaged as the pretext for elaborating engagements with the urban that seek protracted opportunities for experimenting with livelihood, territorial emplacement, and domestic organization. Particular ways of seeing, believing, and knowing accompany these experiments, which residents themselves frequently sum up as paying attention to the background". Simone[45] describes urban

everyday life as "popular economy", where "informality is intensely situated in the specifics of all kinds of articulations and imbrications in many other processes".[46]

Similarly, the idea of a city as a lived space with its spontaneity and diversity is a core of Jane Jacobs's work,[47–50] although she stresses the role of human rights and the necessity to struggle for urban change. Her focus on street-level self-organization also resonates with the notion of rights that are informally negotiated between individuals or communities in the city. As an urbanist, Janet Jacobs conceived cities as the prime drivers of economic development.[48] She was the founder of Vancouverism, a city planning technique that is characterized by medium-height commercial base, and arrow high rise residential towers. She relied on the notion that cities evolve and focused on generators of diversity.[51] Jacobs saw cities as integrated systems that have their independent dynamism and logic, which changes over time depending on how they are used. For Jacobs, experience, observation and culture are critical in understanding and analyzing the city. She studied cities such as Toronto, Philadelphia, Quebec and New York, especially Manhattan and more specifically Greenwich. Her key message is that urban designing cannot be carried out in boardrooms, as urban centers are not abstract.[47] Jacobs[47] argues that streets are the lifeblood of urban centers and that neighborhoods should be capable of serving several functions so that people may be on the streets all the time. Furthermore, she argues that buildings and intricate street structures are of benefit to cities. She also advocates for a high degree of concentration of people. Jacobs further points out that cities are the driving force for development and prosperity, and private investment shapes the city, but private investment is shaped by laws. In this sense, she considers the role of private law in constraining nomocratically (see Introduction) the ways in which autonomous individuals can pursue their goals in the context of cities. At the same time, she emphasizes that such law is a product of social construction, which implies that it could be changed and that the cities emerging from the conduct of individuals would change to some degree with it, for better or worse.

In a similar vein, Kelvin Campbell[52–54] argues that urbanism in the sense of a good way of life for cities' inhabitants is only delivered through effective economic change and the building of cultural capital. He uses

what he calls "massive small techniques" to analyze examples of urban change in Cape Town, London, Johannesburg and Rio de Janeiro. Campbell argues that the collective power of many small ideas and actions can make a big difference in the process of creating an ideal urban center.[54] He argues for collective or rather collaborative action by the government and the citizens in the process of building cities. According to Campbell, laws are responsible for creating conditions for better urban centers. Small laws and rules generate exemplarily complex systems. Campbell acknowledges that the laws governing cities may be written or unwritten. For him, laws, codes, and by-laws shape smart cities' agendas, with 'smartness' taking on a wider meaning that goes beyond or sidesteps its mainstream understanding of the datafied city. Furthermore, laws have a controlling effect on urban structure. In addition, laws create the conditions necessary for the formation of a neighborhood. He considers laws as tools of change but argues against complex policies as he considers them rigid and arrestive. In that sense, he trusts negative coordination or nomocracy and is highly skeptical of attempts at positive coordination or teleocracy (see Introduction).

Other studies also suggest that laws have a role in city planning but that there are also limits to addressing socio-spatial justice through legal tools. The example of Massachusetts' equal access laws in the realm of social service provision, which is considered to be one of the frontiers of urban justice referred to as 'the Dover Amendment', indicates the limits of the law for urban justice efforts. These limits are a result of the economic, social, and political context and historically framed landscapes of poverty in a region.[39,55] On the basis of their research of that case, Pierce and Martin[55] suggest four propositions about the justice potential of the law at the urban scale: 1) "legal tools can support agents working towards urban justice by shielding them from state interference", but "it is never sufficient for urban justice"; 2) "legal tools cannot enable substantive urban justice without also redistributing concomitant social and economic resources to support those outcomes" 3) "legal tools offer little leverage to those seeking systematic revolution except via cynical, strategic abuse of the state"; 4) "the law may be used tactically in concert with other, non-state or non-legal tools towards justice outcomes".

These limitations of legal tools can be taken into account and mitigated to some degree in the case of democratic countries that support free and fair elections, strong and independent institutions, and political rights, such as the right to protest, and civil rights like access to a fair trial. However, considering that most countries in the world have flawed democracies, hybrid or autocratic regimes, the barriers to achieving social justice in cities at global scale are very high.

Other limitations are closely intertwined with the question of 'whose rights and whose city'. They are related to the neoliberal logic of urban development in many regions, and the lack of resources of those who suffer from the inequalities for the advocacy and struggles for their rights. Looked at economically, the cry for the Right to the City here comes from the most marginalized and the most underpaid and insecure members of the working class, not from most of the gentry, the intelligentsia, the capitalists.[56] Despite the assumption that urbanization is followed by the strengthening of women's rights, the women in the Global South do not benefit much from the growing prosperity.[57]

As Robinson[58] stresses, urban theory should acknowledge the differences between experiences of post-colonial cities and wealthy big cities. The 'ordinary' cities in all their complexity and diversity have to be central for research and policies. For example, "traditional western industrializing urbanization accompanied by the rise of middle classes is hardly happening in much of Africa".[59] Instead, in many cities, urbanization is characterized by a large informal and "survival-oriented economic activity", which reinforces an "externally dependant character of urbanization". Some cities in Eastern Europe found themselves in pitfalls of hybrid spatialities that emerged from the mutual embeddedness of neoliberalism and socialist legacy,[60] which means that the spatial organization of the city and social and economic relations impact on the potential for urban change.

8. Conclusion

So what are the potentials and the limits of laws in making cities more livable? Much of what we discussed in this chapter seems to foreground the limits. First of all, cities are not autonomous lawmakers, although they

are undoubtedly significant actors and widely recognized as central units of analysis. Furthermore, cities are characterized by organized complexity, which implies a self-organization that is not easily reconciled with laws, especially the type of laws that aims at furthering specific public goals, however desirable they may seem in the abstract.

Since the self-organization of cities involves conscious agents who ascribe meaning to their conduct and decisions, we also have to consider the role of individual decision-making and the role of conflicts around social justice in the city. As we have shown with the help of the e-scooter example, individuals' value-based decisions are related to laws in several ways. They will take them into account when making decisions about the means of transport to use, but will not necessarily obey them. Their individual decisions, once they are better understood, for example with the help of lab experiments, may in the aggregate lead planners and lawmakers to consider new rules in the interest of improving a city's transportation infrastructure. Yet, there is no pre-established harmony when it comes to determining whether a new rule is needed and what it should look like. Instead, a city's heterogeneities in terms of class, gender and ethnicity may lead to manifest conflict or to denying a part of its inhabitants a life in the city that furthers their well-being.

Through the lens of social justice, we found that the diversity of social, political and economic inequalities impact upon cities' vulnerabilities and puzzle the potential of laws to address multiple urban injustices. Legal laws are bad at addressing pre-existing inequalities since the idea of legal justice is based on treating everyone equally even though they are not equal due to the role of class, ethnicity, race, gender and capitalist production.

Yet, we found that laws nevertheless play a role in making cities livable by creating a framework of rules that limit negative externalities of individuals for other people. It is difficult to imagine big agglomerations of people without such basic rules; the challenge is to identify where such rules are needed and how they may have to be adjusted in view of cities' dynamics, for example in adopting new technologies like the e-scooter. It is in the absence of such rules that informal rules inevitably emerge. Although they play a role in all cities, they are especially central in settings in which the rule of law is not guaranteed. This aspect finally leads back

to the city as an entity that is not an autonomous lawmaker. Despite the seeming rigidity of many laws in the context of fast-changing cities, a self-organization of cities that promotes livability for all at a minimum requires a reliable framework of laws ensuring fundamental rights of their citizens.

We conclude that, to make cities more livable, formal laws are needed as part of an interplay in which top-down approaches set the framework to stimulate and support bottom-up initiatives and change.

References

1. Markusen A. Fuzzy concepts, proxy data: Why indicators would not track creative placemaking success. *Int J Urban Sci* [Internet]. 2013 Nov; 17(3):291–303. p. 293. Available from: http://www.tandfonline.com/doi/abs/10.1080/12265934.2013.836291
2. University C for IESIN-C-C, IFPRI IFPRI-, Bank TW, CIAT CI de AT-. Global Rural-Urban Mapping Project, Version 1 (GRUMPv1): *Land and Geographic Unit Area Grids* [Internet]. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC); 2011. Available from: https://doi.org/10.7927/H48050JH
3. Kamal-Chaoui L, Robert A, editors. *Competitive Cities and Climate Change*. 2nd ed. OECD Regional Development Working Papers, OECD publishing, © OECD; 2009. 172 p.
4. Weaver W. Science and complexity. *Am Sci*. 1948;36(4):536–544.
5. Rittel HWJ, Webber MM. Dilemmas in a general theory of planning. *Policy Sci* [Internet]. 1973 Jun;4(2):155–69. Available from: http://link.springer.com/10.1007/BF01405730
6. Benz A, Papadopoulos I. *Governance and Democracy: Comparing National, European and International Experiences*. Routledge; 2006. 272 p.
7. Newman P. *Sustainable Cities of the Future: The Behavior Change Driver. Sustain Dev Law Policy*. 2010;11(Issue 1 Fall 2010: Sustainable Development in the Urban Environment):7–10.
8. Campbell K. Smart urbanism: Making massive small change. *J Urban Regen Renew*. 2011;4:304–11.
9. Howard PK. *The Death of Common Sense: How Law Is Suffocating America*. Random House Trade Paperbacks; 2011. 256 p.
10. Moroni S. Complexity and the inherent limits of explanation and prediction: Urban codes for self-organising cities. *Plan Theory* [Internet]. 2015 Aug 12;14(3):248–67. Available from: http://journals.sagepub.com/doi/10.1177/1473095214521104
11. Scharpf FW. Games Real Actors Could Play. *J Theor Polit* [Internet]. 1994 Jan 29;6(1):27–53. Available from: http://journals.sagepub.com/doi/10.1177/0951692894006001002

12. Patacchini E, Zenou Y, Henderson JV, Epple D. Urban Sprawl in Europe. *Brookings-whart Pap Urban Aff* [Internet]. 2009;125–49. Available from: http://www.jstor.org/stable/25609561
13. Haken H. Complexity and Complexity Theories: Do These Concepts Make Sense? In: *Complexity Theories of Cities Have Come of Age* [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 2012. p. 7–20. Available from: http://link.springer.com/10.1007/978-3-642-24544-2_2
14. Batty M, Marshall S. The Origins of Complexity Theory in Cities and Planning. In: *Complexity Theories of Cities Have Come of Age* [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 2012. p. 21–45. Available from: http://link.springer.com/10.1007/978-3-642-24544-2_3
15. Luhmann N. *Theory of Society, Volume 1*. Stanford University Press; 2012. 488 p.
16. Bettencourt LMA, Lobo J, Strumsky D, West GB. Urban Scaling and Its Deviations: Revealing the Structure of Wealth, Innovation and Crime across Cities. Añel JA, editor. *PLoS One* [Internet]. 2010 Nov 10;5(11):e13541. Available from: https://dx.plos.org/10.1371/journal.pone.0013541
17. Bettencourt L, West G. Bigger Cities Do More with Less. *Sci Am*. 2011;305(3):52–3.
18. Bettencourt LMA, Lobo J, Helbing D, Kuhnert C, West GB. Growth, innovation, scaling, and the pace of life in cities. *Proc Natl Acad Sci* [Internet]. 2007 Apr 24;104(17):7301–6. Available from: http://www.pnas.org/cgi/doi/10.1073/pnas.0610172104
19. West G. *Scale: The universal laws of growth, innovation, sustainability, and the pace of life in organisms, cities, economies, and companies.* Penguin Press; 2017. 496 p.
20. Arcaute E, Hatna E, Ferguson P, Youn H, Johansson A, Batty M. Constructing cities, deconstructing scaling laws. *J R Soc Interface* [Internet]. 2015 Jan 6;12(102):20140745. Available from: https://royalsocietypublishing.org/doi/10.1098/rsif.2014.0745
21. Portugali J. Complexity Theories of Cities: Achievements, Criticisms and Potentials. In: Portugali J, Meyer H, Stolk E, Tan E, editors. *Complexity Theories of Cities Have Come of Age An Overview with Implications to Urban Planning and Design*. Springer Berlin Heidelberg; 2012. p. 47–62.
22. Bonabeau E. Agent-based modeling: Methods and techniques for simulating human systems. *Proc Natl Acad Sci* [Internet]. 2002 May 14;99(Supplement 3):7280–7. Available from: http://www.pnas.org/cgi/doi/10.1073/pnas.082080899
23. Rangel A, Camerer C, Montague PR. A framework for studying the neurobiology of value-based decision making. *Nat Rev Neurosci* [Internet]. 2008 Jul 11;9(7):545–56. Available from: http://www.nature.com/articles/nrn2357
24. Wardman M. The Value of Travel Time: A Review of British Evidence. *J Transp Econ Policy*. 1998;32(3):285–316.

25. University of Žilina S. *About MoTiV* [Internet]. Available from: https://motivproject.eu/about-motiv/objectives.html
26. Scitech Europa Quarterly. *A digital agenda - A concerted effort is needed in order to realise a strong digital future* [Internet]. Available from: http://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&edid=4bbfddf0-5b47-4a35-b797-80527690bef0
27. Hadar T. *9,000 Tickets Issued to E-Scooter and E-Bike Users in Tel Aviv in 2019* [Internet]. 2019. Available from: https://www.calcalistech.com/ctech/articles/0,7340,L-3763282,00.html
28. Giddens A. *The Constitution of Society: Outline of the Theory of Structuration*. John Wiley & Sons; 2013. 438 p.
29. Crislley D. Megastructures and Urban Change: Aesthetics, ideology and design. In: *The Restless Urgan Landscape*. P Knox. Englewood Cliffs, N.J. : Prentice Hall; 1993. p. 127–64.
30. McCann EJ. Space, citizenship, and the right to the city: A brief overview. *GeoJournal* [Internet]. 2002;58(2/3):77–9. Available from: http://link.springer.com/10.1023/B:GEJO.0000010826.75561.c0
31. Lefebvre H. *The production of space*. Trans. D. Oxford, UK, and Cambridge, MA: Blackwell; 1991.
32. Purcell M. Excavating Lefebvre: The right to the city and its urban politics of the inhabitant. *GeoJournal* [Internet]. 2002;58(2/3):99–108. Available from: http://link.springer.com/10.1023/B:GEJO.0000010829.62237.8f
33. Mitchell D. *The Right to the City: Social Justice and the Fight for Public Space*. The Guilford Press; 2003. 270 p.
34. Harvey D. The right to the city. *Int J Urban Reg Res* [Internet]. 2003 Dec;27(4):939–41. Available from: http://doi.wiley.com/10.1111/j.0309-1317.2003.00492.x
35. Figueiredo GLA, Martins CHG, Damasceno JL, Castro GG de, Mainegra AB, Akerman M. Direito à cidade, direito à saúde: quais interconexões? *Cien Saude Colet* [Internet]. 2017 Dec;22(12):3821–30. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232017021203821&lng=pt&tlng=pt
36. Purcell M. Possible Worlds: Henri Lefebvre and the Right to the City. *J Urban Aff* [Internet]. 2014 Feb;36(1):141–54. Available from: https://www.tandfonline.com/doi/full/10.1111/juaf.12034
37. Harvey D. *The Right to the City* [Internet]. p. 16. Available from: https://davidharvey.org/media/righttothecity.pdf
38. Young I. *Justice and the Politics of Difference*. Princeton University Press; 2011. 304 p.
39. Pierce J, Williams OR, Martin DG. Rights in places: An analytical extension of the right to the city. *Geoforum* [Internet]. 2016 Mar;70:79–88. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0016718516300495

40. Dikeç M, Gilbert L. Right to the City: Homage or a New Societal Ethics? *Capital Nat Social* [Internet]. 2002 Jun;13(2):58–74. Available from: http://www.tandfonline.com/doi/abs/10.1080/10455750208565479
41. Brown A. *Contested Space: Street trading, public space and livelihoods in developing cities*. Rugby, ITDG; 2006.
42. Brown A, Kristiansen A. *Urban policies and the right to the city*. UNESCO; 2008. 56 p.
43. Fernandes E. Constructing the 'Right To the City' in Brazil. *Soc Leg Stud* [Internet]. 2007 Jun 17;16(2):201–19. Available from: http://journals.sagepub.com/doi/10.1177/0964663907076529
44. Simone A. Maximum exposure: Making sense in the background of extensive urbanization. *Environ Plan D Soc Sp* [Internet]. 2019 Jun 18;026377581985635. Available from: http://journals.sagepub.com/doi/10.1177/0263775819856351
45. Simone A. *Improvised Lives: Rhythms of Endurance in an Urban South*. Polity; 2018. 120 p.
46. Simone A. Contests over value: From the informal to the popular. *Urban Stud* [Internet]. 2019 Feb 20;56(3):616–9. Available from: http://journals.sagepub.com/doi/10.1177/0042098018810604
47. Jacobs J. *The death and life of great American cities*. Reissue. Vintage Books; 1961. 480 p.
48. Jacobs J. *The Economy of Cities*. First Pr edition, Vintage; 1970.
49. Jacobs J. *Cities and the Wealth of Nations: Principles of Economic Life*. Reprint. Vintage Books USA; 1985. 257 p.
50. Alexiou A. *Jane Jacobs: Urban Visionary*. Rutgers University Press; 2006. 224 p.
51. Lueders A. 'Exploring the Legacy of the 20th Century's Most Provocative Urban Theorist.' 2016.
52. Campbell K. *By Design, Urban Design in the Planning System: Towards Better Design*. Thomas Telford Publishing; 2000. 104 p.
53. Campbell K. *Re:urbanism: A Challenge to the Urban Summit*. Urban Exchange; 2006.
54. Campbell K. *Massive Small: The Operating System for Smart Urbanism*. Urban Exchange; 2010.
55. Pierce J, Martin D. The law is not enough: Seeking the theoretical 'frontier of urban justice' via legal tools. *Urban Stud* [Internet]. 2017 Feb 20;54(2):456–65. Available from: http://journals.sagepub.com/doi/10.1177/0042098016636574
56. Marcuse P. From critical urban theory to the right to the city. *City* [Internet]. 2009 Jun 2;13(2–3):185–97. Available from: https://www.tandfonline.com/doi/full/10.1080/13604810902982177
57. Chant, S. 2013. Cities through a "gender lens": A golden "urban age" for women in the global South? *Environment and Urbanization* [Internet]. 2013. 25(1): 9–29. Available from: https://doi.org/10.1177/0956247813477809

58. Robinson. *Ordinary cities: Between Modernity and Development*. Routledge; 2006. 198 p.
59. van Noorloos F, Kloosterboer M. Africa's new cities: The contested future of urbanisation. *Urban Studies* [Internet]. 2018 May 24;55(6):1223–41. Available from: http://journals.sagepub.com/doi/10.1177/0042098017700574
60. Golubchikov O, Badyina A, Makhrova A. The Hybrid Spatialities of Transition: Capitalism, Legacy and Uneven Urban Economic Restructuring. *Urban Studies* [Internet]. 2014 Mar 15;51(4):617–33. Available from: http://journals.sagepub.com/doi/10.1177/0042098013493022