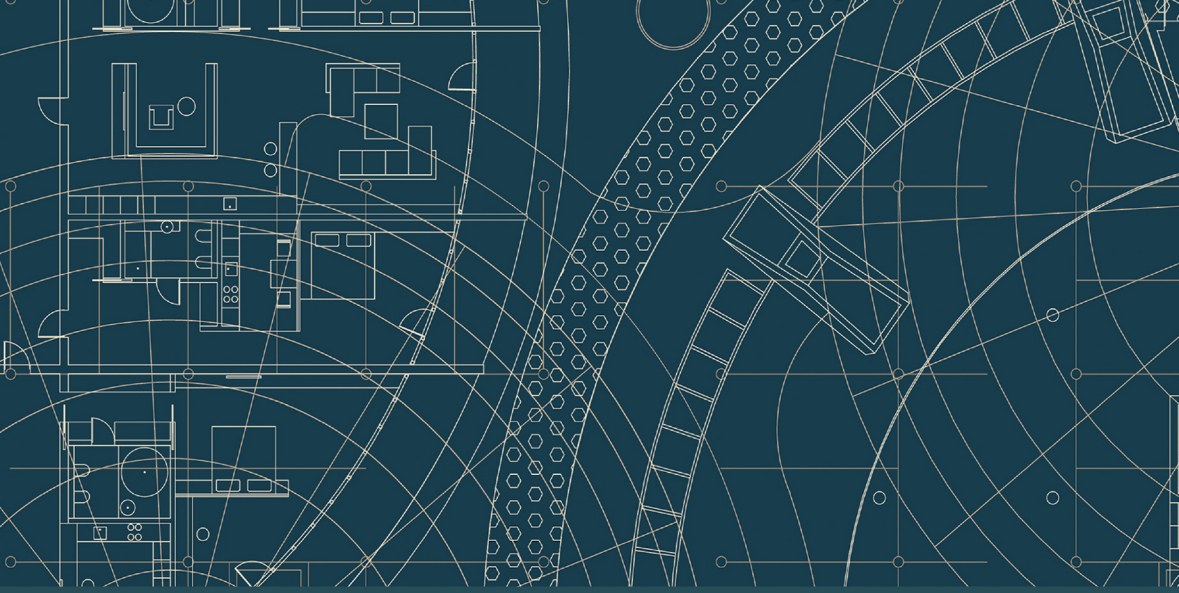

The Refiguration of Space

THE EVOLUTION OF YOUNG PEOPLE'S SPATIAL KNOWLEDGE

Ignacio Castillo Ulloa, Anna Juliane Heinrich, Angela Million and Jona Schwerer

ROUTLEDGE

The Evolution of Young People's Spatial Knowledge

Young people imagine, perceive, experience, talk about, use, and produce space in a wide variety of ways. In doing so, they acquire and produce stocks of spatial knowledge. A quite dynamic and ever-changing process by nature, young people's production and acquisition of spatial knowledge are susceptible to many kinds of conditions—from those that shape their everyday routines to those that constitute historical turning points. Against this backdrop and drawing on a qualitative meta-analysis, the authors set out to discover what changes the spatial knowledge of young people has undergone during the past five decades. To that end, sixty published studies were sampled, analyzed, and synthesized to offer a meta-interpretation in terms of both the evolution of young people's spatial knowledge and the refiguration of spaces. As such, this book will appeal to scholars conducting spatial research on childhood and youth as well as scholars interested in urban studies from diverse disciplines such as sociology, anthropology, geography, architecture, urban planning, and design.

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The Refiguration of Space

Based on the premise that what is social always takes on a spatial form, this series explores the changes wrought in the relations of human-beings to spaces and their spatial practices by current social transformations, conflicts, crises and uncertainties. Welcoming studies from disciplines across the social sciences, such as sociology, geography and urban studies, books in the series consider the ways in which people (re-)negotiate and (re-)construct special orders according to a common pattern of 'refiguration', a process that often involves conflict and is frequently shaped by phenomena such as mediatization, translocalisation and polycontexturalisation.

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1 Finding change

Identifying and explaining how young people's spatial knowledge is refigured

Young people imagine, perceive, experience, talk about, use, and act out of space in a wide variety of ways. In so doing, young people increasingly produce and collect stocks of spatial knowledge. A quite dynamic and ever-changing process by nature, the production and acquisition of spatial knowledge are susceptible to many kinds of circumstantial conditions—from those that shape everyday routines to those that constitute historical turning points. Thus, in this book, we set out to discover what changes the spatial knowledge of young people has undergone during the past five decades. This in turn attests, to a greater or lesser extent, to the refiguration of that knowledge.

In this day and age, many young people live in an increasingly interconnected world. They navigate through, and thus somehow need to cope with, a growing complexity embedded in their everyday lives. The fact that lifeworlds are prone to change—and in fact do change—over time is nothing new. To be sure, young people's everyday lives and living environments have always been and continue to be subject to processes of subtle and radical transformations. However, we argue that a wave of discernible changes of an outstanding significance and dynamism has been unfolding since the late 1960s and early 1970s. We are witnessing both the development and proliferation of new media and (digital) means of communication, the emergence of knowledge societies, post-Fordism, neoliberalism, the spread of emancipation movements, and a general escalation in transnational entanglements and circulations. Hence, we believe this period has marked a watershed within the social and spatial organization of societies. As such, it represents the starting point of our research on how spatialities of young people have changed, and how this has played out in their spatial knowledge, over the last 50 years.

General background: The refiguration of spaces and Collaborative Research Centre 1265

The investigation of the ongoing social and spatial changes mentioned above serves as the leadoff of Collaborative Research Centre 1265 "Re-Figuration of Spaces" based in Berlin, Germany. Since 2018, an interdisciplinary team of over 60 researchers from the fields of sociology, geography, architecture, spatial planning, media and communication studies, and the arts has been empirically exploring

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the diverse spatial expressions of such transformations and their concomitant conflicts from manifold perspectives. In this regard, this Collaborative Research Centre frames the common (and even converging) patterns of these changes as the *refiguration of spaces*. In itself, the refiguration of spaces captures the essence of, and thus represents, the key hypotheses underlying the Centre's theoretical and empirical research.

Given that space is considered intrinsically social, this fundamental research endeavor is broadly underpinned by the overarching theoretical assumption that society should be thought of as spatial. Accordingly, space and sociality are understood as deeply entangled. Therefore, the starting premise of the Collaborative Research Centre is that transformations in social orders become particularly apprehensible (and thus apt to be explored) when looking at the (re)structuring of spaces. In order to determine the characteristics of the refiguration of spaces more precisely, the investigations span "from the level of subjective experience and vernacular knowledge of space to the level of the spatial interrelation between circulation and order, and, on a mediating level, communicative actions, interactions and practices connected with them" (website of CRC 1265: www.sfb1265.de). Funded by the German Research Foundation (DFG), this Collaborative Research Centre comprises fifteen research projects with an empirical focus on an assorted range of research subjects such as architectures of asylum, biographies of middle classes, everyday life in smart cities, locative media, and processes of de- and rebordering.

The scope of our study: The refiguration of young people's spatial knowledge

As a process that traverses societies in its various dimensions, the refiguration of spaces does not leave individuals unaffected. In contrast, how they are affected takes on miscellaneous forms at a subjective level: for example, in their practices and the many ways in which they make sense of social reality. Consequently, the refiguration of spaces entails changing knowledge—that is to say, the knowledge of individuals is refigured. In this respect, we focus our research project within the Collaborative Research Centre on individuals' *spatial knowledge*. Spatial knowledge refers to the ways in which individuals think of, perceive, construct, synthesize, interpret, and associate with spaces. As a result, spatial knowledge plays a significant role in shaping and determining how people (inter)act with and in relation to spaces. In our research project, we have narrowed the scope to place emphasis on the spatial knowledge of young people. The reason behind this decision is twofold. On the one hand, we are interested in the periods of childhood and adolescence as formative phases of life and assume that young people's experiences, and thus their spatial knowledge, deviate substantially from those of adults. On the other hand, we recognize young people to be the adults of tomorrow. Since present-day young people are the first generation of what are known as digital natives, we believe that our findings are in sync with future adult generations.

The aim of our research is by and large to trace, reconstruct, and characterize the evolution—namely, the variations and dynamics of change and stability—of

young people's spatial knowledge from the 1970s on. In so doing, we regard both childhood and adolescence to be contingent, manifold, and variable phenomena shaped by specific spatial, historical, and social circumstances. Accordingly, far from striving to derive some sort of universal spatial knowledge for young people, we gather that young people's spatial knowledge is actually as varied as their subjective experiences of growing up under particular socio-spatial conditions. Hence, to reconstruct the refiguration of spatial knowledge, we established tendencies, patterns, and commonalities in the evolution of young people's spatial knowledge. At the same time, we endeavored to explore and highlight differences, nuances, similarities, and pluralities in young people's multifarious spatial knowledge.

Methodological approach: Conducting (and adapting) a qualitative meta-analysis

Young people's spatial knowledge can be investigated by means of its definitive objectivations. Thus, we analyzed the diverse ways—physical, verbal, visual, and material—in which their spatial knowledge is objectified. Specifically, we delved into young people's spatial practices and appropriations, their perception and experience of spaces, and how they (re)arrange and make sense of spaces. For this purpose, we relied on synthesis research and made use of its inherently historical and processual character to conduct a *qualitative meta-analysis* using the refiguration of spaces as the lens through which the evolution of young people's spatial knowledge was ultimately (meta-)interpreted. By means of theoretical sampling, we chose 60 empirical studies that represent and pertain to the spatial knowledge of young people to varying degrees. Given that the underlying assumption of the refiguration of spaces is that it happens differently everywhere, we selected studies published in English, German, and Spanish containing empirical cases of young people growing up in a total of 31 different countries spread out across Africa, the Americas, Asia, Europe, and Oceania in a wide range of urban, suburban, and rural settings. Likewise, the authors of these studies come from a broad range of disciplines: anthropology, architecture, education, geography, psychology, sociology, and urban planning, amid others.

A guide to navigating this book: Glancing at what lies ahead

Before releasing our copious meta-findings, we would like to explain how the book is structured and what contents await our readers. Following this introduction, we present the broader conceptual framework that guides the research and serves as an interpretative basis for the results obtained from the meta-analysis of sampled studies (see Chapter 2). Here, we explain both the refiguration of spaces and its accompanying three sensitizing concepts of *mediatization*, *translocalization,* and *polycontexturalization*. We then elaborate on our understanding of the categories of *space* and *spatial knowledge* by drawing on a relational conception of space and the German sociology of knowledge. In addition, we address how the notion of spatial knowledge is connected with the ability to view the world objectively and

its underlying learning processes. Finally, based on insights from the academic fields of *children's geographies* and *new social studies of childhood*, we outline the notions of *childhood* and *adolescence* as culturally variable social constructs charged with different categories of difference. Moreover, we discuss the implications such a take on childhood and adolescence has for our research subject: the spatial knowledge of young people. Subsequently, we clarify our methodological approach and explain how we carried out our customized qualitative meta-analysis (see Chapter 3). Afterward, we reflect on what the experience was like.

Against this backdrop, we dive into the findings of our empirical research and discuss our interpretations in four chapters, each dedicated to one overarching theme from our analysis. We begin with a chapter on young people's (everyday) *spatialities* and their *features* (see Chapter 4). This chapter's key argument is that young people's spatialities are increasingly and concurrently shaped and constituted by multiple features. In other words, we contend that instead of one feature or one specific model prevailing over the others, young people's spatialities within the refiguration of spaces are characterized by various features and how they interact with one another. The four features we identified throughout the numerous socio-spatial contexts represented in the sampled studies as the pillars underpinning young people's spatialities are as follows: (1) *circumambient spaces around the home*, (2) *the insular structure of multiple dispersed spaces*, (3) *spatial practices of being mobile,* and (4) *virtual spaces*. Seen through the lens of the refiguration of spaces, we consider these features and their interactions to introduce pluralization and heterogenization into young people's spatialities. Similarly, young people's spatialities are increasingly impacted by the processes of polycontexturalization and translocalization, which in turn are reinforced by the advent of digital media. Overall, these developments are reflected in young people's spatial knowledge as complex requirements to relate to multiple spaces at once.

While we span the broad framework in which young people's spatial knowledge is embedded in the first empirical chapter, we take a deeper dive into more detailed aspects in the ensuing three chapters. First, we discuss the diverse spaces of childhood and adolescence with regard to young people's spatial perceptions (see Chapter 5). We illustrate that from the 1970s onward, young people's experiences have largely responded to a stable set of criteria they use to designate spaces as either positive or negative based on the extent to which their needs and preferences are met. We also see how regulated and controlled spaces are growing in importance. Moreover, we observed pronounced and wide variations among young people growing up in very different geographic contexts, as well as in urban, suburban, and rural settings worldwide with little to no access to spatial realities elsewhere. Nevertheless, an increasing number of young people already had experience from a young age with travel, migration, and transition to (and across) different geographic (and thus social and cultural) contexts and had therefore developed *embodied* and *mediated* experiences of spaces. In this regard, we sustain that young people's spatial knowledge is composed of both embodied-experienced and, progressively, (digitally) mediated stocks. This refiguration influences not only the way young people assess spaces in their day-to-day lives but also, and perhaps

more than ever before, their prospective knowledge of what the future might hold for them (spatially speaking).

Afterward, we expand on the aforementioned dual composition of young people's spatial knowledge to look at its evolution in connection with particular *arenas* and *agencies* at play throughout its production and acquisition (see Chapter 6). We explore the weight arenas and agencies have within this process by deconstructing how young people align their *spatial cognizance* (i.e., the ability to recognize and understand spatial knowledge) and *spatial performance* (i.e., the grasping and seizing of opportunities to use and even modify space physically and/or symbolically) to engage with space. Moreover, *formal-institutional* and *non-formal learning processes* also strongly impact both this ability and much of how spatial knowledge is produced/acquired, for they mediate the internalization of (natural/built) environmental transformations within young people's intellectual development. In light of these points, we show how young people produce/acquire embodied-experienced and mediated spatial knowledge within the framework of their spatial systems and how this knowledge can be rendered (ir)relevant. Although the patterns of relevance-irrelevance might appear irregular, we identify points of intersection and nuances across our studies (such as the effects of mediatization and the ever-lasting search for latitude).

The last empirical chapter is centered around the question of how *social control* and *spatial pedagogization* (see Chapter 7) shape young people's spatial knowledge. Control, regulation, supervision, and parental restrictions are ubiquitous across studies on spaces of childhood and adolescence. Young people's self-determined spatial practices are regarded critically and thus limited in many contexts around the world. Therefore, in this chapter, we underscore how adults (notably parents) attempt to spatially tame, and thus to bring under control, young people and look into how this influences their spatial knowledge. Overall, we sustain that a pronounced characteristic of the refiguration of spaces is that more and more spaces, and consequently periods, of childhood and adolescence are shaped by social control, spatial pedagogization, and supervision—which in turn has multiple effects on young people's spatial knowledge and their tactical and strategic spatial counter-practices.

We conclude this book with an outline of the most important changes and constants in young people's spatial knowledge that we found through our meta-analysis (see Chapter 8). By having traced and examined the changes of young people's spatialities over the past 50 years, we have identified transformations within the evolution of their spatial knowledge—and, by extension, of the refiguration of spaces. As expressions of changing spatial knowledge, we see both a significant increase in complexity within young people's production of spatialities and their development of spatial strategies to cope with ensuing challenges. Amid the various causes of this rising intricacy, new media and communication technologies are becoming ever more significant, directly and profoundly impacting the spatialities of many, though not all, young people. Another trigger for change is the considerably greater amount of time young people spend immersed in spaces whose (subtle or explicit) physical-material arrangements are characterized by—and thus aim

to advance—control, pedagogization, supervision, and monitoring. At the same time, we consider gender bias, which cuts across the socioeconomic strata and geographic contexts represented in our sample, to be perhaps the most prominent continuity within the evolution of young people's spatial knowledge. Moreover, structural economic and political transitions, sudden and gradual physical transformations of spaces, the growing relevance of formal-institutional learning and its concomitant spaces, and varying degrees of mediatization have underpinned the refiguration of young people's spatial knowledge in the past and continue to do so today. One of the core outputs of this research is the multidimensionality that permeates young people's spatial knowledge. By deconstructing this multidimensionality through different levels of empiricism, we not only made it possible to trace the evolution of young people's spatial knowledge, but also managed to present our findings clearly enough to serve as a critical basis for reconsidering design and planning practices of shaping the built and natural environment. With this in mind, we wish our readers a thought-provoking read and hope to expand their (spatial) knowledge with our research.

Acknowledgment: It was by far not a one-wo/man job

When we started our research back in 2018, we certainly did not know what we were getting into by undertaking a qualitative meta-analysis on such an ambitious scale. Fortunately, numerous colleagues actively supported us in this endeavor and thus contributed significantly to the realization of this book. We would like to take this opportunity to express our heartfelt gratitude to many of them for their valuable support and outstanding cooperation. First of all, we would like to thank our colleagues at Collaborative Research Centre 1265 "Re-Figuration of Spaces," who provided a stimulating, interdisciplinary environment for our research and were a constant source of inspiration. Our special thanks go to the colleagues from the two subprojects on "Geographic Imaginations" (Ilse Helbrecht, Carolin Genz, Henning Füller, Lucas Pohl, Janina Dobrusskin, Anthony Miro Born, and Ylva Kürten) and "Locative Media" (Ingo Schulz-Schaeffer and Eric Lettkemann) for their continuous collaboration on spatial knowledge across different age groups. In addition, we would also like to thank Claudia Mock for the ongoing exchange of ideas and inspiring discussions on our shared research topic of young people and their spaces. Furthermore, we would like to express our utmost appreciation to the whole team from the head office of the Collaborative Research Centre and our department office, especially Nina Elsemann, Rim Winker, Thi Tuyet Nhung Dang, and Andrea Aho, who have made our daily work easier.

Over the past years, we have conducted several workshops to explain our methodological approach, empirical findings, and (potential) interpretative paths. We would also like to thank all of the participants from those workshops (Kathrin Hörschelmann, Louise Holt, Cindi Katz, Raphaela Kogler, Antje Lehn, Jorge Raedó, and Christian Reutlinger) whose critical and valuable feedback and encouragement for us to continue with this project constituted a great motivation. Likewise, it was very important to us to have key terminology and some of the main findings

visually communicated. Thanks to Grit Koalick, a great research partner, we luckily succeeded in doing so. Furthermore, to successfully complete our meta-analysis and fine tune this book, we received indispensable support from our colleagues Sarah Friedel, Lýdia Grešáková, Julian Kaiser, Hannah Klug, Luisa Maria Landschoff, and Parna Rastgo: many, many thanks to all of you. An extra thanks go to Zachary Mühlenweg for the language editing. Last but not least, we would like to thank the German Research Foundation for placing their trust in the concept of the refiguration of spaces and for making our research possible by funding the Collaborative Research Centre.

2 Investigating the refiguration of spaces by means of young people's spatial knowledge

A conceptual introduction

Before presenting the methodological and empirical chapters, in which we lay out how we conducted the qualitative meta-analysis and what the results were, we deem it pertinent to provide a short overview of the underlying theoretical concepts we drew on. Moreover, this theoretical framework constitutes the foundation for what we refer to as the *second order of interpretation* in the methodological chapter. As such, it is not only the very lens through which we synthetized our findings, but also the backdrop against which we outlined them. Therefore, we introduce below the overarching notion of *refiguration of spaces* and the concomitant sensitizing concepts into which it has been deconstructed: *mediatization*, *translocalization*, and *polycontexturalization*. Accordingly, we elaborate our understanding of both space and spatial knowledge and, in so doing, emphasize two distinctive elements: the attainment of an objective view of the world and its underpinning learning process. Afterward, we turn to the fairly challenging constructs of *childhood* and *youth* and define them based on long-standing debates from the field of *children's geographies*. In addition, we clarify our use of the related and overlapping categories of children, youth, and young people and the way in which they shape our object of research: the evolution of the spatial knowledge of young people within the refiguration of spaces.

Spaces and their refiguration: A tapestry of interwoven spatial logics, meanings, and practices

Building on the premise that not only space is social, but also society—and therefore phenomena such as childhood and youth—ought to be thought of as spatial, the refiguration[1] of spaces (Knoblauch and Löw 2017, 2020; Löw and Knoblauch 2019) describes and conceptualizes the ongoing and changing process the spatial organization of society has been undergoing since the late 1960s and early 1970s. This period is seen as a turning point within the social and spatial organization of society as it is marked by various fundamental changes, such as the intensification of transnational entanglements and circulations, the reorganization of global divisions of labor, and the development and proliferation of new (digital) means of communication, among others.

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To better grasp the manifold changes the socio-spatial order constantly undergoes from an empirical perspective, the concept of the refiguration of spaces has been broken down into three hypotheses in order to operationalize and describe its transformations: mediatization, translocalization, and polycontexturalization (Knoblauch and Löw 2020: 277). These hypotheses, moreover, serve as sensitizing concepts (Blumer 1954) that lay the groundwork for our empirical research, though they may be challenged or adjusted based on substantiated findings.

Under the first hypothesis, mediatization, it is assumed that new spatial arrangements have surfaced in the wake of the mediatization of communicative actions, especially based on digital technologies: for example, when young people communicate virtually with people at faraway locations or gain knowledge about spaces that they have never, physically, visited. The next sensitizing concept, translocalization, focuses on the convoluted notion of connecting multiple places. More specifically, translocalization designates "the embedding of social units such as families, neighborhoods, and religious communities in circulations that connect the various places with each other" (Knoblauch and Löw 2020: 281). Young people, who frequently move from one city or country to another or regularly play online computer games with their virtual friends from all over the world, could be seen as growing up translocally in that they connect a myriad of spaces through their (both everyday and sporadic) actions and the relationships they establish with both physical and virtual spaces. Finally, polycontexturalization, the third sensitizing concept, refers to the increase of different spaces on various scales and with different spatial logics, in which individuals are simultaneously embedded. Thus, individuals concurrently (need to) address multiple heterogeneous spaces in their actions. Löw and Knoblauch (2019: 7), drawing on Löw (2018), illustrate this with the particular setting of young people in a schoolyard:

> 350 out of 477 schools in Hamburg have their schoolyards monitored by CCTV. At the territorial level, students communicate during break-time with other groups in the yard to distinguish or dissociate themselves; at the relational level, they communicate vis-à-vis some (schoolyard-)external control room from which they are observed; and digital media allow them to communicate with friends and family outside school, sometimes outside the country. It is thus the schoolyard, not the surrounding neighbourhood (unfamiliar to most, since they travel to school via the fixed trajectory paths of public transport), which represents the communicative hub with the students' urban network.

According to the example above, young people experience their everyday lives polycontexturally as they are immersed in multiple spaces with various meanings and spatial logics at the same time. Moreover, this variety of meanings and overlapping spatial logics, as the case in question suggests, consequently confers spaces a pivotal role, although traditionally they have not been thought to play a significant role in young people's communicative practices.

It is worth mentioning that the three hypotheses do not mutually exclude one another. Young people, like those in a schoolyard, grapple with polycontextural spatial settings, all the while communicating via new media and through their digital devices. In so doing, they link miscellaneous spaces at a translocal level. Against this backdrop, next we discuss two fundamental elements of our research: space and spatial knowledge.

Space and spatial knowledge: Delineating young people's spatial cognizance

We consider space, as could be inferred from the previously outlined arguments, to be deeply entangled with sociality—and, in itself, a social product (Lefebvre 1991 [1974]; Soja 1989; Löw 2016). Soja (1989, 1996, 2003) observed that the socio-spatial liaison is rooted in both Lefebvre's and Foucault's call to rebalance spatiality with sociality and historicality. To achieve that, Soja claims, it is necessary to develop a "more comprehensive and combinatorial mode of spatial thinking, one that [is] built upon traditional dualities (material-mental, subjective-objective, empirical-conceptual) but also move[s] the search for practical knowledge beyond their confines to open new ground to explore" (2009: 20). Spatial thinking can therefore be led in alternative directions for produced knowledge to not only be applied to future research but also inform practice.

Drifting from dualities through the relationality and synthetizing of space: What we talk about when we talk about space

Bearing in mind traditional dualities and seeking to keep them at a distance, we turn to a relational perspective of space. The idea of relational space can be traced back to Leibniz's philosophical work, for whom space is not an entity existing independently of objects and events, but rather resulting from their interaction (Rescher 1991). Spatial properties, therefore, are relational, and the spatial positioning of objects is determined by their interactions with other objects (Scruton 1996 [1994]: 362). Accordingly, it is precisely this perspective of the internal relations among all substances and things that makes Leibniz's relational space differ radically from the Newtonian assumption that both time and space "existed in their own right, that they were content neutral containers indifferent with respect to whatever it was that was placed within them" (Harvey 1996: 251). Furthermore, in sustaining that space was enduringly contingent on matter, Leibniz renders both time and space relational, for they "are nothing apart from the things 'in' them" and are derivatives of "the ordering relations that obtain among things" (Rescher 1979: 84). Thus,

> [s]pace is the order of *coexistence*—that is, the order among the mutually contemporaneous states of things; while time is the order of *succession*—that is, the order among the various different mutually coexisting states of things which—qua mutually coexisting—must, of course, have some sort of 'spatial' structure.
>
> (Rescher 1979: 86–87; italics in the original)

In a similar vein, Löw (2016: 188) conceptualizes space as "[…] a relational arrangement of social goods and people (living beings) at places." Hence, (social) space is always based on individuals drawing relationships between different elements and entities. To investigate this spatial relationality, Löw introduces an analytical differentiation in the subjective process of constructing spaces; she distinguishes processes of *spacing* from an *operation of synthesis*. While the former describes the process in which social goods and living beings are actively placed and positioned in relation to each other, the latter unites this relational ensemble of social goods and social beings subjectively in a space. As Löw writes, "[…] an *operation of synthesis* is required for the constitution of space, that is, goods and people are amalgamated to spaces by way of processes of perception, imagination, and memory" (Löw 2016: 134–135; italics in the original). Moreover, both processes, instead of taking place arbitrarily, are socially pre-structured by shared stocks of knowledge. For example, due to their common knowledge, most individuals would relate elements that they identify as a swing, a sandbox, a slide, and some children with adults to each other and synthesize them as the meaningful construct of a playground space. They assign the meaning "playground" to such a spatial arrangement and act correspondingly in this construction of space. However, this does not necessarily always have to be the case. If we consider someone who has never heard of or seen a playground, this person would probably synthesize these elements in a quite different and singular way, which would not match what is usually taken to be a playground. Furthermore, such a person may not even link and relate the swing, the sandbox, and the slide to one another and thus not produce a spatially coherent arrangement.

As the abovementioned discussion on relational space suggests, this example is based on the structuring dimension of spaces. Spatial structures, as routinized and institutionalized spatial arrangements, shape the social actions of individuals. Institutionalized spaces, as spatial structures, are imbued with meaning and power and thus permit specific actions while restricting others (Löw 2016). To return to the playground example, the routinized construct of a space as a playground allows children and parents alike to play there without any need to question these actions. However, teenagers meeting at a playground to hang out, smoke, and maybe consume alcoholic beverages—to name a bold and simple example—would be seen as a deviating action and a construct of space that might well be sanctioned. Therefore, specific routinized constructs of spaces, spatial arrangements, and processes of synthesis are related to stocks of knowledge regarding how to act appropriately in specific spaces, what meaning these spaces have, and what purpose these spaces serve. However, this does not mean that spaces instantly determine actions in their entirety. Rather, they shape those actions in specific ways by constantly and routinely being reproduced. In other words, space simultaneously results from a subjective process of spatial construction and shapes social actions in the form of spatial structures (Löw 2016). As such, exploring spatial phenomena—like the evolution of young people's spatial knowledge—requires a spatial analysis that, as contended by Lefebvre (1991 [1974]: 12), does not attempt to subdue the material to the mental, given that the perceptions, symbolizations, significations, and imaginations we produce, although they can be told apart, are not detached from physical and social space.

The mutually structuring relationship between spatial knowledge and socio-spatial actions: Searching for the significance of space

Regarding the notion of knowledge, we mainly draw on the German theory of the sociology of knowledge, which was inspired by Berger and Luckmann's (1966) *Social Construction of Reality* and has been further developed through communicative constructivism (Knoblauch 2019, 2020). Hence, knowledge is understood as "socially mediated meaning" (Knoblauch 2019: 26), given that, since every action is defined by meaning, knowledge both shapes and defines actions (Knoblauch 2019). To put it another way, our actions, as well as the way we make sense of the world and interpret and experience situations, are strongly dependent on and defined by our subjective knowledge. Consequently, knowledge is social to the extent that it is broadly shared by members of a society, a social group, an expert community, and the like. Thus, knowledge is socially mediated in distinctive collectivities and allows (in most situations) for a common understanding and interpretation of reality. Nevertheless, knowledge is also situated in and fashioned by individual experiences and can therefore diverge between individuals.

Societal transformations take place at a subjective level, amid knowledge changes, and in the many ways individuals act and make sense of social reality. Consequently, the refiguration of spaces articulates the knowledge of individuals, which in turn rests on the manifold manners in which space is experienced, perceived, and constituted. Thus, the refiguration of spaces is deconstructed by analyzing the knowledge of individuals. More concretely, we focus our research on the spatial knowledge of individuals (Löw and Knoblauch 2019; Castillo Ulloa et al. 2022). Moreover, exploring spatial knowledge is thought to lead to a better understanding of how spatial arrangements in which individuals live and act are constantly being refigured. As indicated above, spatial knowledge includes the ways individuals think of and perceive spaces, how they construct and synthesize spaces, how they interpret specific spaces, and which actions they connect to such spaces. It shapes the way people act with and in relation to spaces. Thus, there exists a veritable mutually structuring relationship between, and consequently a constant reproduction of, spatial knowledge and socio-spatial actions (see Figure 2.1).

To define the conceptual contour of spatial knowledge more precisely and address the phenomenon of refiguration of spaces, we propose the following definition[2]:

> Spatial knowledge refers to the (socialized) experience of space and perceptions of space, as well as the emotions and affects associated with it. Subjectified spatial knowledge has to be physically, linguistically, or materially objectified to become the subject of investigation. Similar to the general concept of knowledge, spatial knowledge contains not only explicit and linguistic forms, but also implicit, corporal, and routinized practices. It is shaped by institutionalized stocks of knowledge as they in turn are produced and mediated by institutions such as family, science, school, standard regulatory systems (e.g., building regulations), or art. These institutions communicate to the subjects ideas about the spaces in which they live, how these spaces should be arranged, and how to deal with these spaces. These ideas contain, for example,

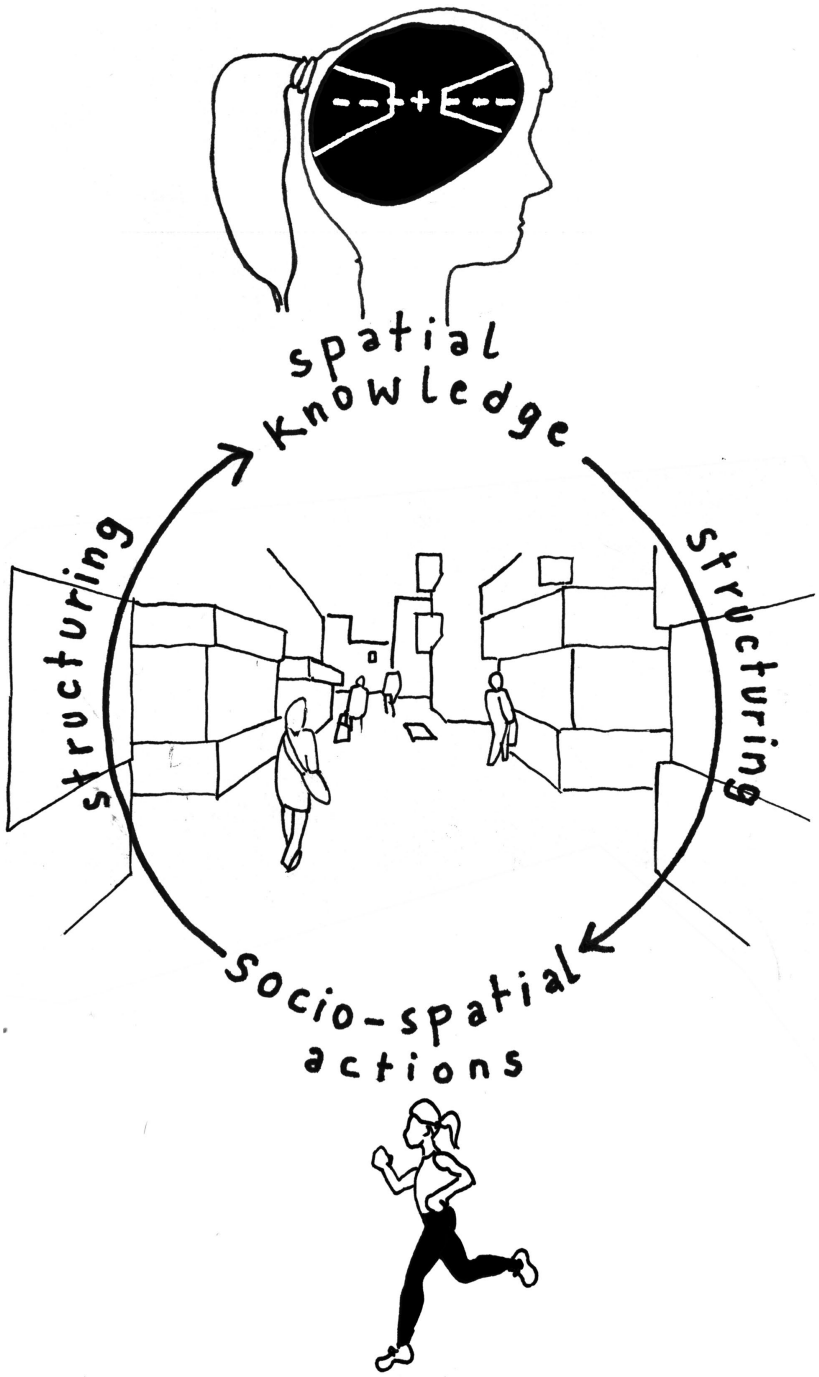

Figure 2.1 The mutually structuring relationship between socio-spatial actions and (spatial) knowledge. Graphic: Grit Koalick, visuranto.de, based on our elaboration.

> the lifeworld belief about what is considered "far away" and what is "close," the knowledge about the scales of spaces or notions of how the world is spatially refigured, and where individuals are situated within this figuration.

Reading between the lines of this definition, we see that deconstructing spatial knowledge presupposes, in one way or another, a quest for significance: that is to say, the significance of space. This exploration, moreover, entails a re-assessment of "the traditional saying that 'things occur in space' by asking *where, how* and *why* they do occur where they do" (Sack 1980: 14; italics in the original). Otherwise, the connotation and importance young people ascribe to spaces—and how this consequently enables them to situate themselves in the world as it becomes spatially refigured—would go unnoticed. To avoid this trap and comprehend the evolution of the spatial knowledge of young people, we contend that it is necessary to understand how they become *spatially cognizant* in the first place.

The spatial knowledge of young people: Learning to view the world objectively

The evolution of young people's spatial knowledge is related to their intellectual development. By and large, humans develop their cognitive capacity in two stages. The first stage implies a sensorimotor perception of the separation of the self from the world. During this stage, intellectual development remains global and syncretic and, despite the distinction of the self/world divide, "objective and subjective facts are still closely connected and are often intertwined in the process of evaluating self and world" (Sack 1980: 122). In the subsequent stage, conceptual thought arises, which allows humans to both perceive and represent themselves and their worlds by way of symbols, whose "primary effect […] is to drive a wedge between the subjective and the objective, to further differentiate and separate self from the world" (Sack 1980: 122). Eventually, a stable perception and conception of objects, spaces, and their interactions is achieved—that is, an objective view of the world (see Figure 2.2).

From very early on, young people render their surroundings meaningful by sensorially and motorically engaging with all things external to them. "By involving the thing in an action, the thing and the action become fused" (Sack 1980: 123). While young people increasingly gain the ability to recognize themselves and objects in space and time in a moderately steady way, they still get a sense that the things they have fused through action are very much active and dynamic. In other words, they animate their surroundings (Werner 1980 [1940]; Piaget 1971). Likewise, their objective view of the world is never completely detached from their subjective one; in fact, they can shift from one to the other with far greater ease than adults. At some point, following Piaget and Inhelder (1967: 375), young people obtain a complete conception of space and thus of a spatial system "grounded in and derived from substance and their spatial properties and interrelationships" (Sack 1980: 127).

In our view, young people produce and acquire *embodied-experienced* and *mediated* stocks of spatial knowledge throughout their intellectual development within the framework of their spatial systems. While the former are produced through corporal, physical, and sensorial explorations of the (natural/built) environment

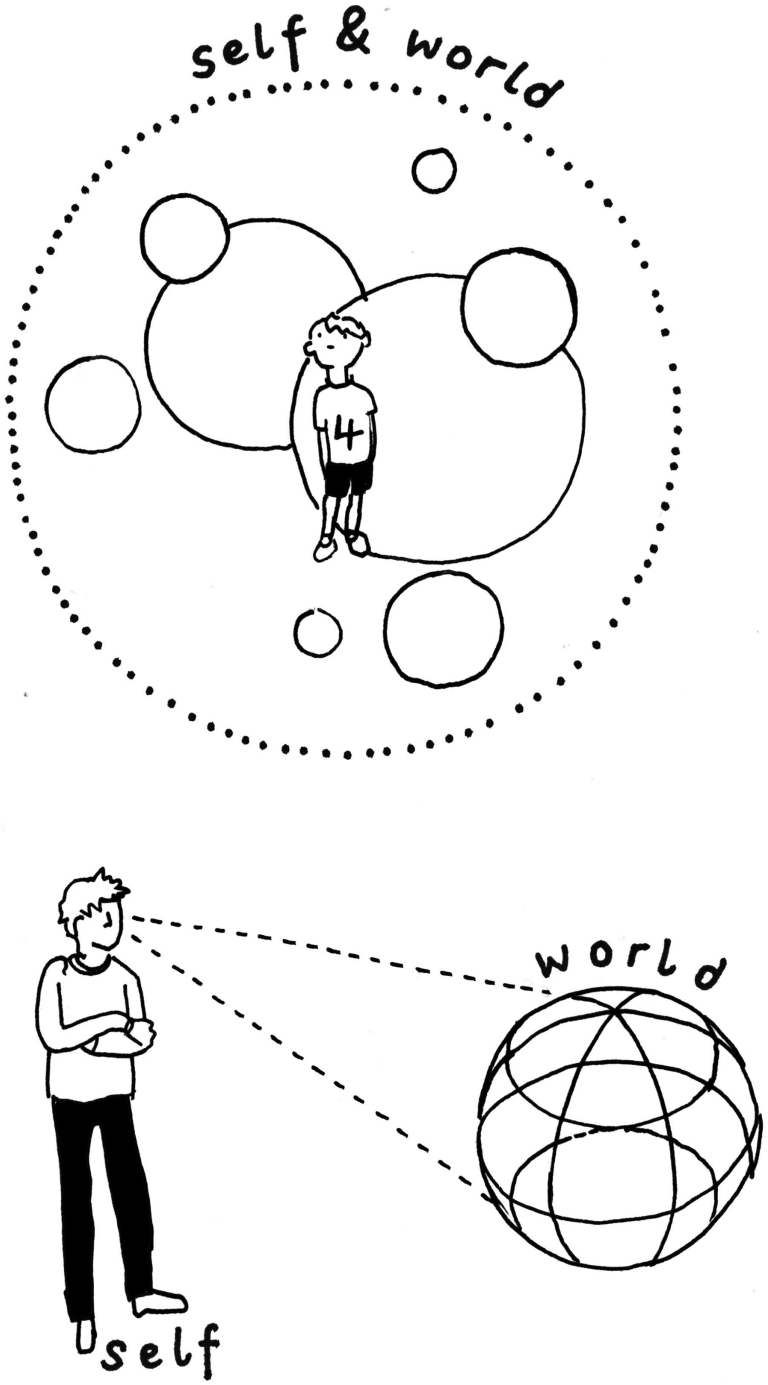

Figure 2.2 The wedge between subjective and objective that leads to separation and differentiation of self from the world—the bedrock of an objective view of the world. Graphic: Grit Koalick, visuranto.de, based on Sack (1980: 122).

without any intermediating agency, the latter are acquired through an intermediating agency (e.g., educators). We argue that learning processes, both formal-institutional and non-formal, play a decisive role in this process.

Learning processes: Spatial and agential underpinnings of the spatial knowledge of young people

Stocks of spatial knowledge, as we have succinctly explained, result from young people's ability to increasingly develop more complex mental schemata and stable spatial systems, upon which their objective view of the world is founded. This constitutes a *learning process* in which young people acquire, construct, and refine their spatial knowledge and literacy. Generally speaking, learning can take the shape of *formal institutional* or *non-formal processes*. Despite each process having its own distinctive form and nature, there are several key differences that set them apart (Smith and Phillips 2017). First, non-formal learning is characteristically related to physical learning and thus to the acquisition of skills through the senses (particularly, observation). Formal institutional learning, on the other hand, is structured around abstract and theoretical knowledge, which is usually conveyed through oral or written means. Second, formal, as opposed to non-formal, learning is connected to, and takes place in, institutional spatial settings (e.g., schools and their premises or university campuses). By contrast, non-formal learning is not institutionalized, for it is not subject to a fixed curriculum, is not intended for certification, is not state-led, and predominantly occurs beyond the spatial settings of formal institutional learning.

To avoid ascribing the status of non-formality to everything that young people learn outside school hours and premises, and thus underscore the spatiality of their non-formal learning processes, it is necessary to go beyond the assumption that young people's learning processes are constructivist (Piaget 1963; Kahn 1999; Chawla and Salvadori 2003: 296). More specifically,

> This means that their conceptions of physical and social worlds reflect a continuous exchange of assimilation, accommodation, and equilibration in which they take in what they are ready to absorb according to current levels of understanding; while at the same time they progressively adjust their understanding in response to new and unexpected experiences. They are not passive learners, but active producers of knowledge with an innate drive to explore and learn.
>
> (Chawla and Salvadori 2003: 296)

This non-passivity is where we identify the ability of young people to actively produce stocks of spatial knowledge of an embodied-experienced character. In addition, they acquire mediated stocks of spatial knowledge (which could eventually be used to produce others). As such, both types are intertwined and lie at the core of young people's intellectual development. A key factor within this production and acquisition of stocks spatial knowledge is the enacting agency of each type of learning.

In essence, "agency references the wider context of meaningfulness (i.e., ends) in which people are inescapably immersed and in which people act" (Thrift 2014: 63). Therefore, agency plays a fundamental role in the construction of a comprehensive conception of space, through which an objective view of the world is achieved. Likewise, when stocks of spatial knowledge are produced, and thus embodied-experienced, the agency at play is predominantly that of young people. When spatial knowledge is intermediately and deliberately conveyed, the agency of the person transmitting spatial knowledge is at the forefront of the process. Accordingly, the agency can be either formal-institutional or non-formal depending on the sort of learning process in which it is being enacted. Interestingly, when the process happens to be non-formal, both young people and the very physical disposition of space itself have agency. In such cases, space is regarded as a third teacher. In line with the Reggio Emilia approach, knowledge is not only sensitive to space but may also be substantially determined by it (Gandini and Gambetti 1997; Edwards et al. 2011). At the same time, we sustain that the agency of formal institutional learning processes is ratified by the institutional (symbolic) identity of the person(s) controlling and steering the process. While schoolteachers are the example par excellence, an institutional agency may also include professionals such as architects, planners, or geographers leading a tour for students or researchers who directly involve young people in their investigations. Furthermore, the type, or even absence, of an intermediating learning agency could potentially render learning processes non-formal even if they unfold within the spatial settings of formal institutional learning.

Now that we have addressed the elements that delineate the spatial knowledge of young people in our meta-analysis, let us now turn to how this knowledge is refigured spatially—and why it is worth explaining this refiguration.

Young people's diverse spatial knowledge and the refiguration of spaces: Seeking refigured articulations across dissimilar and nuanced socio-spatial realities

In the following chapters, we broach the subject of the refiguration of spaces by focusing on and looking into the spatial knowledge of a specific group: young people. We decided to investigate the spatial knowledge of young people specifically because they "are important social actors whose experience of spaces and places may vary from adult's experience" (Evans 2008: 1659). Therefore, we are interested in the multiple expressions of childhood and adolescence. Moreover, since today's young people are the first generation of *digital natives*, we also assume that our findings will apply to future adult generations. Additionally, young people are both entrenched in and shape the socio-spatial process related to the refiguration of spaces. On the one hand, the structuring socio-spatial arrangements in which young people grow up and their everyday spaces are subject to continuous transformations within the refiguration of spaces. On the other hand, young people are an essential part of these shifting socio-spatial arrangements for they construct (their) spaces and spatial relations through (their) everyday spatial practices.

Consequently, the refiguration of spaces is reflected in young people's spatial knowledge and thus can be investigated by means of its specific objectivations: in other words, by analyzing the diverse ways—physically, linguistically, visually, and materially—in which young people objectify their spatial knowledge through spatial practices, perceptions of spaces, (re)arrangement and cognizance of spaces, etc. The empirical chapters of this monograph cover a broad range of objectivations of young people's spatial knowledge, thus tracking its evolution: their (everyday) spatialities, perception and experience of space, appropriations of space, tactics and strategies to resist spatial control, and a host of others. To that end, while identifying objectivations in the spatial knowledge of young people that signal its evolution within the 60 meta-analyzed studies, we had to bear in mind that, since "things are in space and have spatial properties, we cannot actually separate things from space. All we can do is alter their spatial arrangements, find similar things in different spatial configurations" (Sack 1980: 15). Sure enough, the methodological nature of a qualitative meta-analysis is inadequate to reorganize space (and then assess the ensuing effects); however, it does allow us to detect similarities, nuances, and contrasts across the different spatial configurations that have been explored in the various meta-analyzed studies.

Our understanding of childhood, youth, and, consequently, young people stems from the academic field of children's geographies.[3] Rejecting a biological, essentialist, and universalist conception of childhood and youth, children's geographies adopt a comprehension of childhood and youth as social constructs based on the "new social studies of childhood" (James et al. 1998; Holloway and Valentine 2000a, 2000b; Holloway and Pimlott-Wilson 2011). As Hörschelmann and van Blerk (2012: 2) point out: "This new approach to the study of childhood questioned the universality of contemporary, Western definitions of age by demonstrating the extent in which generational categories such as childhood and youth are socially constructed and historically and culturally variable." Consequently, instead of conceiving childhood and youth as homogenized experiences, both categories are understood as contingent on and influenced by the diverse (social, historical, and spatial) contexts in which young people's lives unfold. Furthermore, childhood and youth are entangled in and molded by other categories of difference such as class, gender, and race (Holloway and Valentine 2000a; Holloway and Pimlott-Wilson 2011; Hörschelmann and van Blerk 2012). By emphasizing what young people know and are capable of, we can conceive them as "'knowing' actors" (Holt 2011: 2) in possession of a competent social agency. From the standpoint of young people as social actors, capable of shaping and negotiating their lives within social structures, ideas portraying them as developing "less-than-adults" (Holloway and Valentine 2000a: 2) are downplayed.

Deeming childhood and youth as diverse and culturally variable phenomena shaped by specific spatial, historical, and social contexts has far-reaching implications for our main research topic: the evolution of the spatial knowledge of young people. We cannot derive *the* spatial knowledge of young people as some sort of universal, coherent, and consistent knowledge for there is simply no such thing as *one* spatial knowledge for young people. By the same token, young people's stocks

of spatial knowledge differ according to their diverse, subjective experiences of growing up in different socio-spatial contexts, as mentioned above. Hence, rather than aiming to produce a representative picture of young people's spatial knowledge, we attempt to reconstruct articulations of the refiguration of spaces as shared tendencies, patterns, and commonalities within the diverse and various stocks of young people's spatial knowledge. In addition, we explore and bring to the fore differences, nuances, similarities, and pluralities in young people's multifarious spatial knowledge. To this end, we look for congruities that account for our assumptions and relate to the sensitizing concepts underpinning the refiguration of spaces. Likewise, Katz's (2004) work, which reveals how global processes shaping young people's everyday lives are negotiated and reshaped by young people locally, has informed our interpretative purview. As Katz notes:

> In examining global processes in their particular historical geographies, my project disrupts the seemingly contradictory assumptions that the imperatives of global capitalism are homogenizing, while at the same time their effects in one locale are separable from their effects in another. These processes are homogenizing, while at the same time their effects are of course differentiated in diverse historical geographies, their often startling similarities offer interesting common ground for political response.
>
> (Katz 2004: xii)

By seeing the refiguration of spaces as a global phenomenon, we are searching for its diverse, though similar, articulations in the spatial knowledge of young people growing up under different socio-spatial conditions.

So far, we have not yet distinguished markedly between children, youth, and young people (though we have, not baselessly, been using primarily young people). Understood as social constructions, these categories defy a clear and universal determination: "Although childhood and youth imply successive stages in life, their boundaries are fluid and dependent on historical, social and cultural contexts" (Hörschelmann and van Blerk 2012: 14). Nevertheless, throughout the empirical chapters of this monograph, we use particular terms when relating to specific age groups. Far from denying the social construct of childhood and youth, thus reproducing their essentialist and age-based categorizations (even when such a reproduction inevitably takes place when classifying children and youth by age), our intention is to give the readers an impression of the age of the young people who were investigated in the different studies we meta-analyzed. Without making any universalist claims about the everyday lives and the subjective experiences of the individuals connected to these age-related categorizations, we apply the term *children* to individuals below the age of 12, while we consider *youth*, *teens*, and *adolescents* to be 12 years old and above. We do not define a maximum age for youth as these age-based boundaries differ culturally. In many southern African countries, as Hörschelmann and van Blerk (2012) point out, individuals up to the age of 35 are still included in youth policies, while events such as marriage or childbearing determine whether or not an individual is considered an adult in certain cultures.

Therefore, we rely on the studies' use of the terms youth and young people to incorporate them into our sample. Similar to Hörschelmann and van Blerk (2012), we use the term *young people* when encompassing both children and youth.

The four empirical chapters present the major findings of our attempt to trace the evolution of young people's spatial knowledge from the 1970s onward (modifications to the socio-spatial organization of society, regarded as manifestations of the refiguration of spaces, began to emerge more conspicuously by the end of the 1960s and beginning of the 1970s). Given that arriving at these results has been anything but an easy task, we provide a detailed account of how we applied the method we selected to undertake the research, which ultimately culminated in this monograph: a qualitative meta-analysis.

Notes

1 The term *refiguration* is hyphenated in some quotes: *re-figuration*. This corresponds to an older (stylistic) variation and does not necessarily indicate a significant difference between the two denotations.
2 This definition resulted from debates within Collaborative Research Centre 1265 "Re-Figuration of Spaces," especially among research teams that make use of spatial knowledge to examine distinct forms of refiguration of spaces.
3 The categories of children and youth are often used interchangeably and the research in the field of children's geographies—at least presently—covers both children and adolescents (Evans 2008; Hörschelmann and van Blerk 2012).

3 Second-level empiricism, or learning to read between interpretative orders

A snapshot of our qualitative meta-analysis

A meta-interpretative prism: Synthesis research based on qualitative meta-analysis

The ultimate purpose of this chapter is to go beyond the typical handbook-like description of *qualitative meta-analysis* (for such a perspective, see Castillo and Schwerer 2021). Hence, we primarily present an account of how we carried out our qualitative meta-analysis and reflected in retrospect on what the experience was like. Before going into detail, we share some thoughts on why we believed qualitative meta-analysis, as a mode of synthesis research, to be both suitable and valuable for looking into the central subject of this book: the evolving spatial knowledge of young people.

As pointed out in Chapter 1, we have traced the evolution of the *spatial knowledge* of young people from the 1970s onward against the conceptual backdrop of the process referred to as *refiguration of spaces*. Turning to *synthesis research* in order to shed light on the chosen phenomenon within such a theoretical frame presented itself as a suitable method due to the inherently historical and processual nature of any given transformation and the need to de- and reconstruct it. Moreover, using already existing case studies and dovetailing them made it more practicable to cover the previously indicated timespan and include a wider array of geographic contexts. Likewise, due to the heterogeneity of the sample used, this made it possible to attain substantiated insight into the various dimensions (*spatiality, learning processes, perception of space, spatial pedagogization*, among others) of, and which in turn allowed us to track changes in, young people's spatial knowledge. Completing this meta-analysis has, in many ways, resembled the task of assembling a puzzle and, as such, certain considerations had to be factored in prior to beginning.

Contemplating the meta-analytical big picture: Considering the implications of (assembling) the pieces before tackling the jigsaw

In order to provide a general impression of our qualitative meta-analysis, we deem it is necessary to briefly address some of the (overlapping) conceptual implications of conducting qualitative synthesis research.

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Synthesizing knowledge: Positivistic carpentry, interpretative art

The synthesis of existing research is frequently equated with *literature reviews*, which, given their general lack of analysis or evaluation, "in practice are more rituals than substantive accomplishments" (Noblit and Hare 1988: 12). Meta-analysis was therefore conceived under the assumption that there were many small wstudies—for the most part evaluations—that gathered general data. Hunter et al. (1982: 11), seeking to circumvent the recurrent trap of simply averaging across studies, emphasize the interpretative character that meta-analysis ought to have. In this respect, the scope of a meta-analysis should be "topical rather than methodological" (Hunter et al. 1982: 166) and relevant studies need not be included or excluded solely on the basis of an effectively deployed methodology, for their worth may well also be in their synthesis. Hence, we filtered a rather vast pool of studies while pondering both aspects—and, at the same time, avoiding tipping the scale in favor of one or the other. As a result, the sample represents a balance between research design and interpretation of results across select studies.

Overall, while data can be successfully accumulated using positivistic tools and methods, the linkage of knowledge and the explanation of its relevance require the production of a (new) meaning, which cannot help but to be an interpretative act. All in all, the synthesis of knowledge is "essentially an interpretative [and inductive] endeavor" (Noblit and Hare 1988: 16), which, far from frictionless, is fraught with challenges, difficulties, and even ingrained ambiguities.

The (inherent) paradox of synthesis: Coupling its meaning to an effective scheme

The synthesis of qualitative knowledge almost inevitably entails a dual paradox: on the one hand, the meaning of synthesis and, on the other, the suitable strategies to be employed to acquire such meaning (Doyle 2003: 322). Therefore, in the synthesis of our findings, we have purposely endeavored to avoid merely aggregating and then coming up with a coherent whole. Seeking instead to circumvent generalization and extrapolation, we have placed much more emphasis on the (possible) connections between the key elements extracted from the chosen studies. To this end, following Doyle (2003: 232), we have "reconceptualized across studies" by using an analytical (i.e., grounded coding) and an interpretative (i.e., a set of concepts not explicitly present in the array of studies) framework. In other words, we have put together the jigsaw puzzle of the evolution of young people's spatial knowledge by discovering how its pieces fit together without ever possibly knowing how it would look once assembled.

A meta-analytical understanding of young people's spatial knowledge: Making sense of the pandemonium of colliding voices

Taking into account the implications of qualitative research synthesis, we settled on using a qualitative meta-analysis for our investigation because it is "a distinctive category of synthesis in which findings from completed qualitative studies in a target area are formally combined" to create, intrinsically, "an analytic process

Table 3.1 Comparing three forms of synthesizing research.

Method / *criterion*	*Quantitative meta-analysis*	*Literature review*	*Qualitative meta-analysis*
Purpose	Accumulation of findings for prediction	Progressive linking to form a chain of reasoning	Reconceptualization to contribute to human discourse
Data process	Results of studies with the same research construct	Identifying relevant theory and results in the literature	Findings and interpretations of existing case studies
Data collection	Exhaustive collection or random sampling	Exhaustive review	Purposive sampling
Process	Restating and aggregating quantitative data	Bridging summaries	Constructing (meta-) interpretations
Output	Generalizations	Logical rationalizations	(Meta-)interpretations across case studies

Source: Adapted from Doyle (2003: 324).

and interpretative product" (Sandelowski 2004: 892). This realization, moreover, was feasible in that we could distinctly distinguish a qualitative meta-analysis from other research methods that also blend together collections of studies: literature reviews and *quantitative meta-analyses* (see Table 3.1).

As shown in Table 3.1, quantitative meta-analysis, first coined by Glass (1976), operates on the basis of the aggregation and subsequent synthesis of pre-existing statistical findings, with the sole aim of predicting outcomes for situations emanating from similar (and comparable) circumstances (Doyle 2003: 324). Furthermore, as Noblit and Hare (1988: 81) observe, whereas "[quantitative] meta-analysis synthesizes the data,"[1] qualitative meta-analysis "synthesizes the substance of qualitative research." Literature reviews, on the other hand, attempt to produce "a research chain" building on research findings that are linked linearly (Krathwahl 1993). To that end, literature reviews require careful reading and summarizing of selected studies—to be able to bridge the gaps between them—with the explicit objective of delivering "logical, deductive rationalizations, conclusions, and calls for future research" (Doyle 2003: 324). However, literature reviews lack "some way to make sense of what the collection of studies is saying" (Noblit and Hare 1988: 15).

Consequently, a literature review would not have been sufficient for our research undertaking, given that no (meta-)interpretation could have delivered the desired results for lack of a composite picture of the chosen studies. A quantitative meta-analysis would not have been apposite either, since aggregation and extrapolation do not conform with synthesizing existing singular cases with the aim of reconceptualization (instead striving for prediction). Ultimately, qualitative meta-analysis enabled us to delve into the evolution of young people's spatial knowledge because such an en-masse interpretation made it possible to conceptually reformulate what the selected cases already problematized in the form of a "first-order interpretation" (Britten et al. 2002: 213) and thus place them on a "second empirical plane"—precisely where the pieces of the puzzle began to fit together. In order to stress this analytical approach, we also use the term "meta-analyzing" as a verb, which is not common otherwise.

Moving from one order of interpretation to the next was far from smooth and effortless. Undertaking this task involved dealing with different and dissonant voices at play—those of the researched young people, of the authors of the chosen studies, and ours—and felt, at times, as though we were attempting to harmonize mayhem.

Silencing the cacophony: Disentangling the configuration of our qualitative meta-analysis

The steps and phases in which we executed our qualitative meta-analysis follow, in general terms, Noblit and Hare's (1988) "meta-ethnography"[2] and Doyle's (2003) suggested enhancements thereto. The need to tailor, drawing on existing proposals, our qualitative meta-analysis responded to not only how opaque steps and phases are described (notably, everything that pertains to synthesis) but also the lack of consensus regarding specific aspects (for instance, the final number of studies to include in the sample) in the somewhat scarce literature (France et al. 2014). Broadly speaking, we took ten steps, organized into three consecutive phases. While Table 3.2 provides a concise description of the steps according to their respective phase in a systematic manner, the actual implementation of steps and phases is illustrated in Figure 3.1.

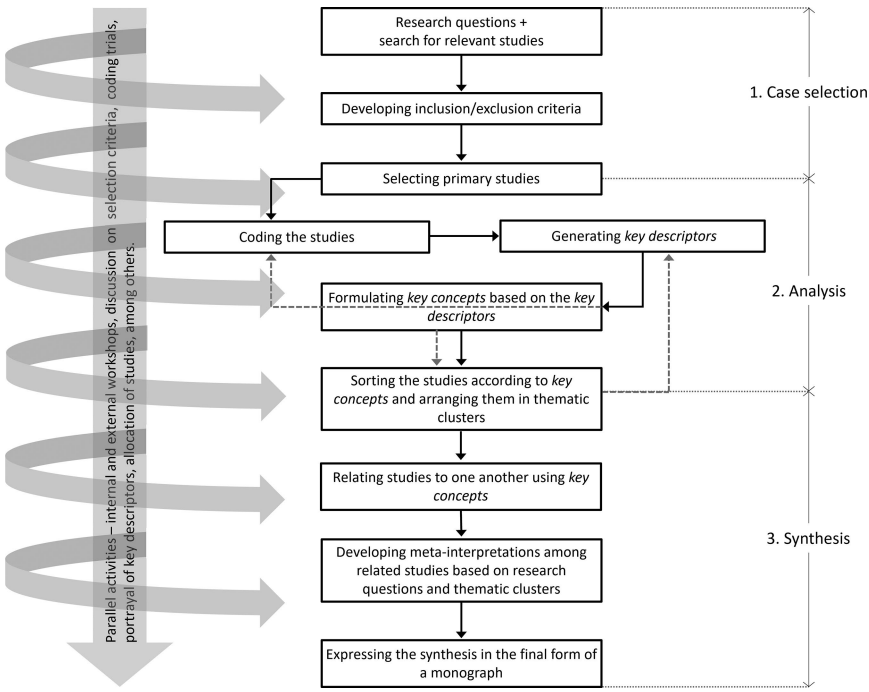

Figure 3.1 Steps, phases, and parallel activities in our qualitative meta-analysis.

Source: Own elaboration.

Table 3.2 Steps and phases of our qualitative meta-analysis.

Phase	*Step*	*Description*
1. Case selection	Research questions and search for relevant studies	The evolution of young people's spatial knowledge constituted the intellectual interest that sparked the idea of conducting synthesis research by means of qualitative meta-analysis. From this point of departure, and focusing on the question of change, the search for relevant studies was started. To this end, we prepared a list of search terms, feeding apparently apt studies into the pool. We considered studies in English, German, and Spanish and used a literature management program for organization.
	Developing inclusion/ exclusion criteria	We employed two main criteria to filter the studies in the pool: The research design had to be (at least predominantly) qualitative, and the conceptual framework needed to address aspects related, to a greater or lesser extent, to the debate on young people's spatial knowledge. In addition, we sought to strike a balance with regard to the time of publication (see Figure 3.6), age of researched young people, and geographic region (see Figure 3.6).
	Selecting primary studies	Deploying the criteria indicated above, a team member read studies deemed potentially fitting in their entirety and critically reviewed them. In case of indecision, individual cases were jointly discussed to reach a final decision on whether or not to include them. Moreover, the final selection of studies, rather than definitive prior to analysis, was gradual and ran, to a certain degree, in parallel to the analysis of the first chosen studies. This proved beneficial to ensuring the aforementioned balance. Overall, multiple empirical cases were purposively, rather than exhaustively, sampled because, as sustained by Doyle (2003: 326), our qualitative meta-analysis was aimed at an interpretative explanation (and not forecasting).
2. Analysis	Coding the studies	The basic task of this step was to develop a coding scheme. Based on the process of reviewing studies, a list of codes was put together (see Figure 3.2). Fundamentally, the codes used are a range of dimensions used to identify the evolution of young people's spatial knowledge in the analyzed studies. In other words, the coding scheme serves as a lens, allowing us to grasp how primary studies directly and indirectly (and even somewhat unintentionally) problematized young people's spatial knowledge and, thus, offered valuable material to discuss its evolution. Similar to how we selected the primary studies, the coding scheme was tested and refined. We also relied on external researchers to ensure we were on the right track.
	Generating key descriptors	After coding a study with the software MAXQDA, we prepared key descriptors. The key descriptors we produced were concise, rich, and detailed depictions that comprised all details that were extracted from the study according to the codes employed (see Figure 3.3). In so doing, we decided to paraphrase and directly quote studies in an effort to progressively find ways for our voices to enter the analysis and switch interpretative orders while preserving some inherent elements (e.g., the voices of researched young people and the interpretation thereof).
	Formulating key concepts based on the key descriptors	For each key descriptor that was generated, one or more key concepts were conceived. We were able to capture the core elements of key descriptors in key concepts. For this purpose, we agreed that they had to be concise and precise sentences (see Figure 3.3) and, as such, make it possible to manage the ensuing steps—sorting and relating the 60 selected, coded, and (meta-)analyzed studies. In this respect, key concepts were subject to modification if other team members were not able to understand them. To resolve this issue, we discussed key descriptors and their key concepts continuously and internally, thus ensuring that the analysis of every study was comprehensible enough for everyone in the team. To this effect, a fact sheet, summarizing diverse specifications (e.g., research question, context of case study, theoretical framework, etc.), proved vital.

(*Continued*)

Table 3.2 (Continued)

Phase	*Step*	*Description*
	Sorting the studies according to key concepts and arranging them in thematic clusters	The last stage of the analysis phase was the allocation of studies. As already stated, we soon became aware of the need to achieve a transition to synthesis in view of the sample size, the fairly individual fashion in which the studies were being analyzed, and the looming necessity to describe our findings in a coherent and consistent narrative. Thus, we determined a series of thematic clusters that surfaced rather organically while discussing the analyzed studies. They were basically recurrent topics and dynamics (e.g., gender differences, home as the gravitational center of spatial structures, effects of mediatization, etc.) that our meta-reading and exploration revealed progressively.
3. Synthesis	Relating studies to one another us ing key concepts	To bring the studies into dialogue, we required points of intersection—that is, similarities, contrasts, and nuances. However, this was not possible at the first, individual level of interpretation that each of the studies intrinsically had. Instead, we embedded them in a second order of interpretation by placing them in a second-level empirical framework: namely, pertaining to the evolution of the spatial knowledge of young people. This was only feasible thanks to the manageability granted by the key concepts. While the description of this step might sound relatively mechanical and uncomplicated, it was in fact complex and challenging. Therefore, we assigned the studies to the wide array of key concepts we had produced, given that an effective thematic compilation demands careful thought and reflection (and resists, to a certain extent, systematization).
	Developing meta-interpretations among related studies based on research ques tions and thematic clusters	We were able to start drafting meta-interpretations by attempting to find connective pathways between interpretative orders—those of the studies and ours. Drawing on the already established thematic clusters and returning to the research questions, we delved further into the intersections we had identified and nurtured our meta-exegeses with both key concepts and key descriptors.
	Expressing the synthesis in the final form of a monograph	The actual empirical chapters of this monograph represent the final step in the qualitative meta-analysis we conducted to shed light on the evolution of the spatial knowledge of young people. We defined the main topics of the chapters according to the most prominent findings, for we deemed them to capture the substance of the key dimensions in the change of spatial knowledge. These topics are as follows: spatialities (Chapter 4), spatial perception and experience (Chapter 5), learning arenas and agencies of spatial knowledge (Chapter 6), and social control and spatial pedagogization (Chapter 7). It was at this point that we could fully realize two fundamental components of qualitative meta-analysis: (a) the borders marked by the singularities (geographic location, disciplinary background, theoretical purview, etc.) encircling each empirical case had faded (see Figure 3.4) and, as a result, (b) studies were then regarded as a collection whose reconceptualization, expressed now in terms of our interweaving intellectual interest, was remarkably different from its constituent parts.

Source: Own elaboration.

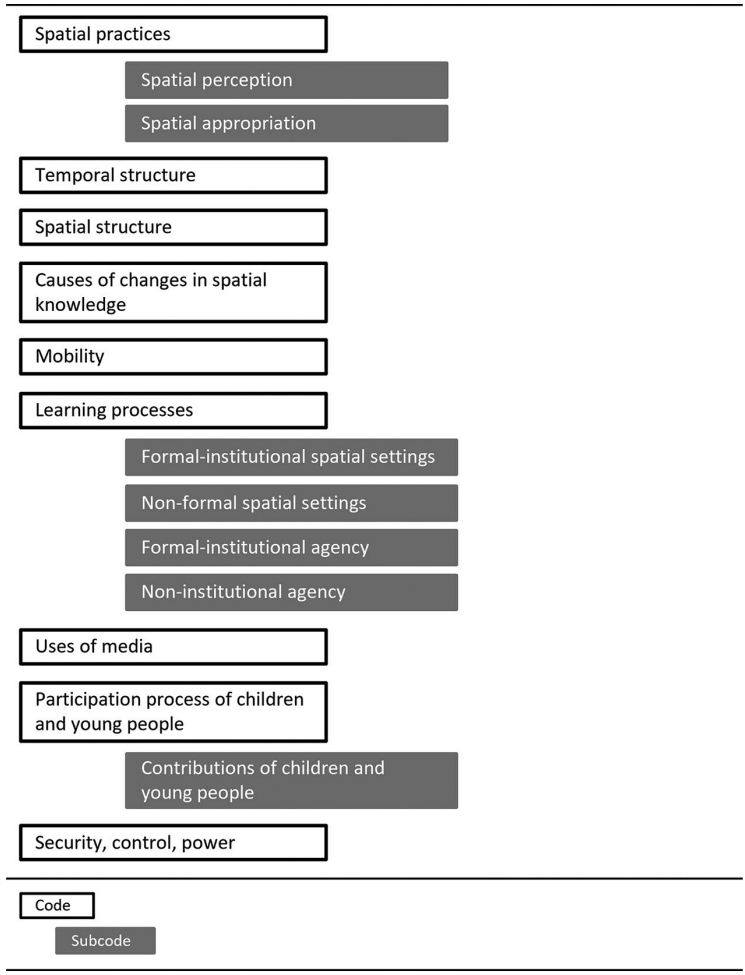

Figure 3.2 The coding scheme used to analyze the selected empirical cases.
Source: Own elaboration.

Although the phases and steps of our qualitative meta-analysis are depicted in Figure 3.1 and summarized in Table 3.2 separately and successively, they ultimately overlapped with one another as a result of iteration. As described above, the first phase of our qualitative meta-analysis, case selection, started with a list of search terms, which we created based on the main research question: How has the spatial knowledge of young people changed since the 1970s? We then began to dig deeper into diverse related databases (online library catalogs, peer review journals, archives, Google books, etc.) and browse for publications in English, German, and Spanish. Whenever we came across what appeared to be an appropriate empirical study, we carefully checked its list of references to identify other potential matches.

Prior to reaching the final list of studies that would be sampled, we sketched a preliminary draft of the coding scheme—which, in principle, is meant to lay the foundation for the analysis—largely based on the list of search terms and our definition of spatial knowledge. Our goal was to start reading the texts, while noting any *first-order interpretations* that complied with our intellectual interest (i.e., the second level of interpretation).

It became clear that both the filter for selecting cases and defining codes was in need of improvement and refinement. Accordingly, we added the category beacon studies to the inclusion/exclusion criteria to ensure that we covered renowned and influential investigations (e.g., Kevin Lynch's (1977) pioneering book, *Growing Up in Cities*). Because coding supports the discovery process due to its cyclical and processual traits, we used cyclic coding and eventually incorporated sub-coding (Saldaña 2013 [2009]). Hence, we broke down some codes (e.g., spatial knowledge and learning processes) into subcodes to facilitate the transition to the analysis phase (see Figure 3.2). The experience of improving the selection and coding of studies demonstrated the significance of the purposive character that permeates the idea behind qualitative meta-analysis as a whole—and not exclusively with regard to sampling. Furthermore, the deliberate nature of the coding scheme became even clearer when coupled with the central research question.

CODE: **Spatial practices**	
KEY DESCRIPTOR	The spatial practices of children are substantially determined by the urban form of the barrio where they live: a wide main street functions as a central axis along which spaces where children meet, play, hang out, etc. are organized. Likewise, children's spatial practices arise, to a certain extent, from spatial practices that adults and young adults initiate and wherein children participate (e.g., a celebration of Mother's Day, Children's Day or a national holiday in a football field). Spatial practices of children, through such "unusual" events, are enhanced as children discover that a priori established uses are not unequivocal: one may dance or play another sport in a football field. This leads to a sense of appropriation reflected in the intensity with which children would talk about certain spaces; even to the point of assessing them "as their own". Hence, singular and collective spatial practices of children reflect how they not only enliven but also learn to tailor to their needs and preferences of public spaces. Children spatial practices constitute, therefore, a "spatial syntax" (seen in their paths, games, scenes, etc.), which, taken as "narratives on space" of a psychoanalytic nature, reveal an epistemological conception of reality integral to processes of spatial constitution; rather than enunciations that have been merely translated and displaced into the field of language. Thus, children's spatial practices evince that "space is, above all, lived and represented and not solely geometric, homogenous and abstract" (p.205).
KEY CONCEPT	Spatial practices of children are narratives on space, which evince their epistemological conception of reality and, as such, are integral to their processes of spatial constitution.
Source:	Jaramillo, Jesús. 2011. 'Esa cancha es nuestra: una etnografía con niñ@s sobre espacio público'. *Avá: Revista de Antropología* 20: 197–213.

Figure 3.3 Example of a key descriptor and its corresponding key concept.

Source: Own elaboration.

As we continued onto the analysis phase, we performed trials to get a feel for the coding, as well as for formulating *key descriptors* and *key concepts*. At this stage, iterative work took us all the way back to coding. Consequently, while allocating studies according to key concepts and arranging them in *thematic clusters*, key descriptors were often revisited and discussed together in either workshops or team meetings. The key descriptors and their key concepts (see Figure 3.3), which were the results of iteration during the analysis phase, significantly reduced the need for recursion. Such an unexpected outcome, moreover, was very likely connected to what we termed parallel activities—internal and external workshops and meetings held regularly to deliberate on selection criteria, coding, key descriptors, allocation of studies, etc. (see Figure 3.1). In hindsight, debating (notably, internally) revealed the importance of involving more than two researchers, if possible, from different backgrounds.

All things considered, the qualitative meta-analysis from which this monograph arose did not constitute a linear and chronological endeavor. Rather, it called, as would any other research methodology, for iteration, trial and error, and adaptability whenever difficulties were met. It also turned out to be pivotal to deal with limitations (in both the study design and sampling), dilemmas (particularly garbage in, garbage out), and criticism (sample size vis-à-vis epistemological consistency) inherent to using qualitative meta-analysis as a research synthesis method. In the following subsection, we share a few general reflections aimed at underscoring why we consider our—and for that matter, any other—qualitative meta-analysis to be valuable in spite of how unavoidably bitter it from time to time was.

Looking into the rearview mirror: Although qualitative meta-analysis is challenging, it is still worthwhile

Qualitative research methodologies focus, for the most part, on the binary subject-object relationship in which researchers are typically the subject and practitioners the object. Such a relationship is also hierarchical and denotes that the voices of the researchers are more relevant than those of the practitioners (Doyle 2003: 338). Consequently, this leads to a "crisis of representation" (Lincoln and Denzin 2000), demanding that researchers actively incorporate "the Other" (Fine 1994) into a researcher-researched-reader triangle (Doyle 2003: 339). An alternative to incorporating the Other is to include investigations that further the integration of multiple voices. Therefore, we decided to use a qualitative meta-analysis as it, by design, "includes the 'Other' because it combines multiple voices to seek new interpretations" (Doyle 2003: 339). This incidentally led us to remain as close as possible to our empirical data as we prepared key descriptors and key concepts, so that we did not lose track of the voices of the researched young people or those of the authors of the studies. Likewise, whenever feasible, we incorporated citations of young people directly into the analysis (see Figure 3.3) and synthesis phases. While we managed to represent the Other relatively well, there was the ever-present and latent risk of falling into the rabbit hole of either unnecessary over-complication or undesired over-simplification. Below, we outline the hurdles we encountered,

and how we dealt with them, while seeking a rich (though imperfect) balance, somewhere between complication and simplicity, throughout the three phases of our qualitative meta-analysis.

Case selection

Given that qualitative meta-analysis is based on a non-aggregative logic, empirical cases need not be selected on the grounds of similar research viewpoints, goals, discoveries, or interpretations. We therefore sought and filtered studies according to which ones "provide the most fruitful data for the research question" (Doyle 2003: 327) and allowed for the best "opportunity to learn" (Stake 2000: 446). For this purpose, we carefully reviewed theories and research designs before we even considered including a study in our sampling. Verifying these two aspects required us to carefully read the cases we found: which meant going beyond the superficial skimming of abstracts and keywords.

By and large, our case selection rested on conceptualization and maximum variation in order to make room for negative or extreme dissimilarities and celebrate, as it were, heterogeneity. This also raised the question of how to determine the size of our set of studies. Qualitative meta-analysis is, undoubtedly, a labor-intensive methodological approach. Some authors sustain that it took 18 months for experienced researchers, working part-time, to evaluate 40 papers (Britten et al. 2002). Similarly, Campbell et al. (2011) suggest that the maximum number of studies that can be meaningfully synthetized is around 40 for the researchers involved to become sufficiently familiar with and immersed in the data. However, Toye et al. (2014) contest such limitations and managed to effectively synthetize over 70 papers by using *qualitative data analysis software*. Against this backdrop, we settled on a sample of 60 studies (for an overview see Appendix) considering our available man-/woman-power (four part-time researchers plus an assistant) and the anticipated use of the qualitative data analysis software MAXQDA to analyze the selected cases.

Furthermore, we had to grapple with the heterogenous character of our sample, which was also echoed by the multidisciplinary profile of the research team (bringing sociology, architecture, and urban planning together). Although it was at times overwhelming and exhausting to swim through such a manifold sea of studies, in retrospect it proved very fruitful in yielding a substantiated synthesis. Nevertheless, the heterogeneity also highlighted the tension between the (representative) sample size and epistemology (Weed 2004). We were thus confronted with the dilemma of needing to adhere to an interpretative epistemology to conduct synthesis research, while at the same time managing to aggregate a quantitatively significant sample to make the synthesis—and its concomitant meta-interpretations—worthwhile (Weed 2005). Even though the epistemology issue does not—and should not—vanish, the size of the sample could most certainly be relativized for neither generalizations nor logical rationalizations were the objective of our qualitative meta-analysis. Be that as it may, we had to devise alternatives to continuously adjust the analysis of our mosaic of studies.

Analysis

What we analyzed were texts imbued with rich interpretations founded on transcribed material. More specifically, the content of the studies on which we focused was "the talk of the authors in their written interpretations" (Doyle 2003: 330) since this kind of text excerpt can be regarded as situated constructions open to (further/new) analytical interpretation: that is to say, a *second-order interpretation* (Atkinson and Coffey 1997). For this purpose, we coded studies with the aid of the software MAXQDA and identified the various passages in which the authors were effectively addressing (somewhat unknowingly) any of the topics contained in our coding schema. Afterward, following Doyle (2003), we prepared key descriptors, to which we added key concepts foreseeing potential implications with regard to the transition to the synthesis. As shown in Figure 3.4, studies at this stage were still regarded individually, and, fast-forwarding again to the synthesis phase, we created a fact sheet for each study to keep record of its contextual origins (disciplinary background of the authors, geographic location of the empirical study, research question and research design, etc.). We were thus able—especially during the allocation of studies—to keep studies organized.

It is worth noting that throughout the analysis phase, we were in effect producing, by way of the key descriptors and key concepts, textual units of analysis by combining original and newly created language. While the need for a novel language emerged as a result of the research question we were pursuing, it was important to not entirely supplant the initial language of the studies. We emphasized this not only for the sake of the aforementioned balance of representation, but also because textual units, rather than facilitating re-interpretations of the studies' research questions, were meant to become "an interpretation through a new lens" (Doyle 2003: 330). By using such a new lens, we began to move toward the synthesis. This was contingent upon us organizing the studies into key concepts and then assigning them to various thematic clusters. Furthermore, although the lower section of Figure 3.4 portrays the sorting of the studies as though it were a well-ordered and methodical process, it involved a great deal of discussion, iteration, and adjustment (even when we were already well into the synthesis phase) and thus in reality looked slightly different (see Figure 3.5).

Synthesis

Just as in previous stages, we started the final phase of our qualitative meta-analysis, synthesis, before having completed the previous one, analysis. Hence, we tested partial versions of our synthesis by presenting them, in the form of preliminary theses, at international workshops and conferences. Although we obtained fruitful feedback (for instance, theses were too dense and abstract), we also recognized that the analysis needed to be more complete in order to develop the synthesis properly. We thus put the synthesis phase on hold because, as a whole, it constituted the interpretative linkage between the selected group of cases and the meta-analytical research question.

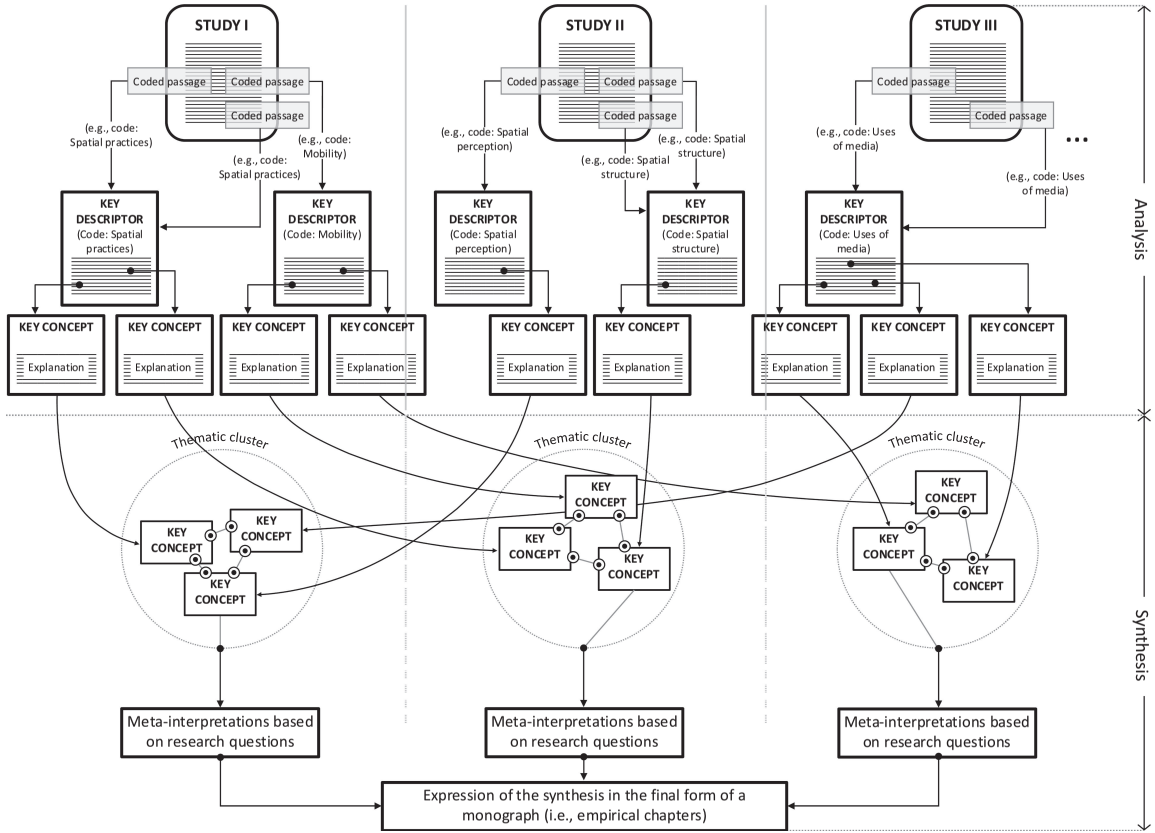

Figure 3.4 Analysis and synthesis phases of our qualitative meta-analysis.

Source: Own elaboration.

Figure 3.5 Depiction of the actual thematic clustering of the key concepts. As the photographs shows, by using cards and sticking them on the wall, it was possible to gain a big picture of the clusters, discuss the allocation of key concepts, and, if needed, reassign them.

Source: Own photograph.

Additionally, synthesis, in contrast to analysis, is "the movement from viewing the cases as parts of a collection to viewing the collection as a whole" (Doyle 2003: 335).

Soon enough, we realized that the synthesizing moment was only plausible if the studies, via the key concepts, constituted a "cartographic collectivity" founded on the diverse thematic clusters established (see Figures 3.4 and 3.5). Afterward, we laid out four empirical chapters and filled them with the thematic clusters. We then set out to tackle the last two steps of our qualitative meta-analysis: creating meta-interpretations that responded to the research question and expressing the synthesis, grounded on the sorted material, in writing (supplemented with diagrams here and there). As expected, the writing process was anything but easy. We drew thematic correlations, used the six thinking hats method, sketched lines of argumentation based on the material, shifted topics, and steadily made adjustments. Every now and then, we had to pause to separate the wheat from the chaff—that is to say, the inescapable and hurtful need to leave out specific portions (key concepts) of material. Equally important were the moments in which we stumbled

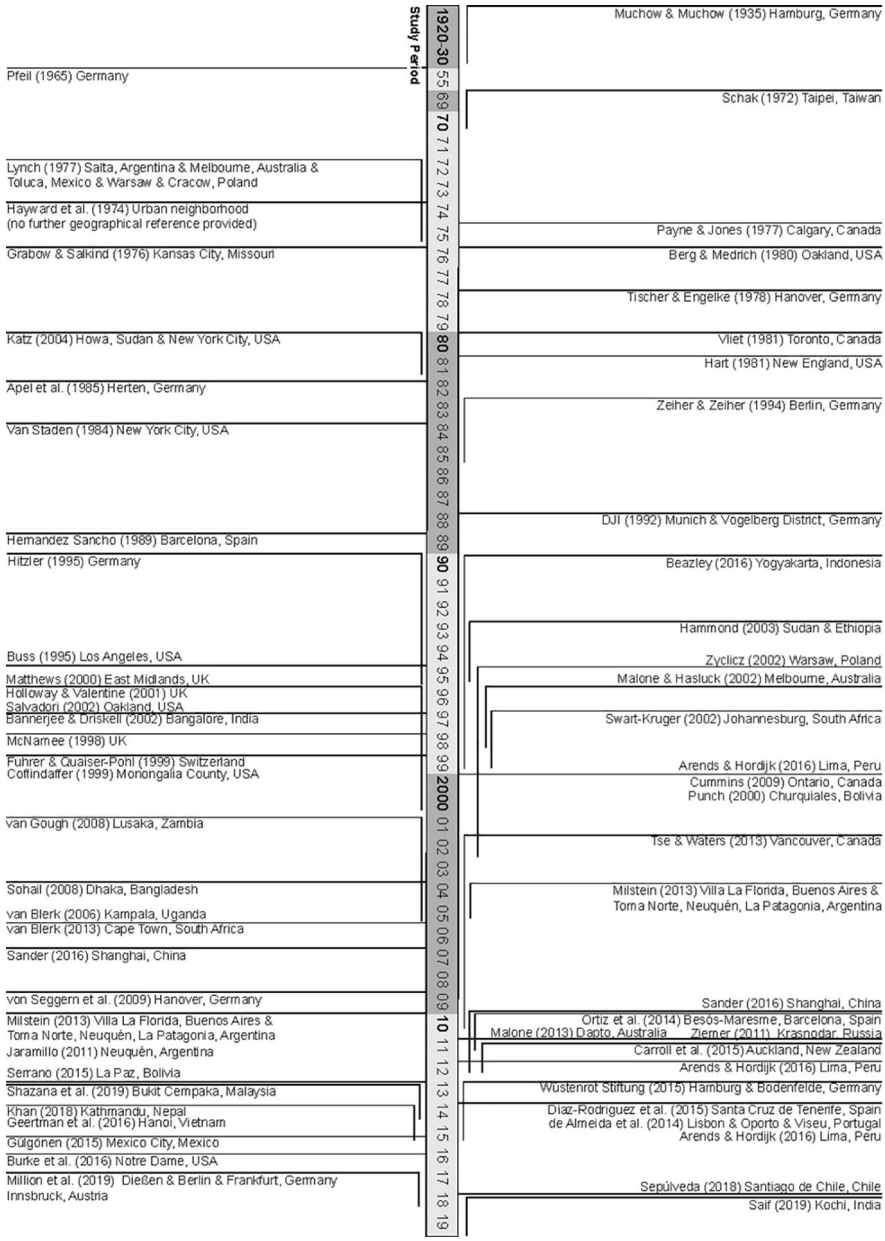

Figure. 3.6 Overview of selected studies for our meta-analysis: Tabulation of investigation period and/or year of publication by authors of sampled studies (p.34) and Geographic locations of selected studies (p.35).

Source: Own elaboration.

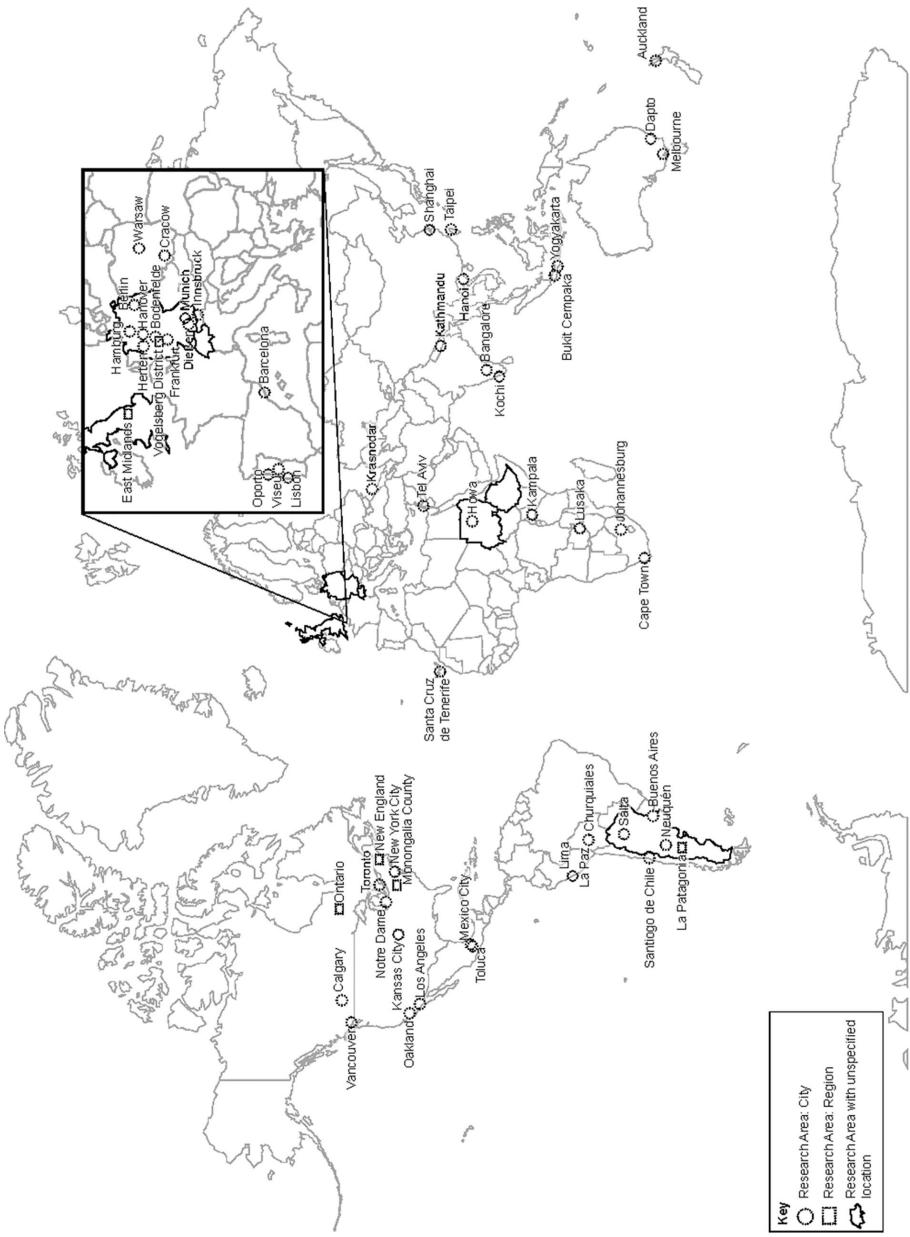

Figure. 3.6 (*Continued*)

upon promising leads that unfortunately lacked enough material to support them. We hence had to put such leads aside to avoid making bricks without straw.

Unsurprisingly, writing the synthesis at times required us to look back at the key descriptors, fact sheets, and sometimes even the original coded and analyzed studies. Writing the synthesis with such caution, as tiresome and frustrating as it could be, proved to be imperative due to the importance of developing the synthesis through meta-interpretations across the studies and avoiding the quagmire of predictive generalizations (quantitative meta-analysis) and logical rationalizations (literature reviews). Given all these points, conducting our qualitative meta-analysis was in hindsight an exhausting, albeit gratifying, experience of discovery that uncovered a great deal of research potential—and, as such, it was without a doubt worthwhile.

Swan song: Tearing down walls to find novelty under the sun

The evolution of the spatial knowledge of young people—the subject of inquiry that sparked the intellectual interest behind our qualitative meta-analysis—is not likely to appear as such in the existing literature. We have therefore compiled a manifold assortment of qualitative and empirical studies that examine a wide range of topics alluding and pertaining to the spatial knowledge of young people: perceptions of (in)security, identity formation, mobility, favorite spaces, and a host of others (see Figure 3.6; see Appendix). Accordingly, we have covered diverse disciplines (including psychology, geography, education, sociology, anthropology, architecture, and urban planning) with not only our sample but also the members of our research team.

As we started with preparations to launch the research project on which our qualitative meta-analysis is based, we increasingly noticed how qualitative meta-analysis, as a synthesis research method, has been either widespread or absolutely absent depending on the field of knowledge. Qualitative meta-analysis has been widely implemented and critically debated in areas such as public health, education, sports science, and psychology. In contrast, there seem to be no instances of qualitative meta-analysis in areas such as planning, sociology, and geography, from where many of our sampled studies were taken. This demonstrates how a qualitative meta-analysis—such as ours—might serve as a trailblazing approach, for it makes it possible to reconceptualize existing research and the theoretical and practical debates surrounding it.

By reconceptualizing and synthetizing case studies, our qualitative meta-analysis compelled us to acknowledge the importance of the uniqueness not only in individual cases, but also in collections of cases. Synthesis, as conventionally conceived, states that singular cases cannot escape the limits of their contexts. Qualitative meta-analysis, we now know, extends and broadens these borders. Synthesis—by far the most challenging and delicate phase of a qualitative meta-analysis—is what enabled us to tear down the boundaries of the studies we analyzed. We realized that to achieve this it is necessary to circumvent the universalization or syncretism predicament, for neither of them is conducive to the goal of producing (meta-)interpretations, instead resulting in all-encompassing (meta-)narratives. Qualitative meta-analysis does not

have to do with producing new mainstreams either. It is about realizing that, sometimes, it is far more fruitful and productive to pay closer and critical attention to what is already (partially) known instead of seeking—or even forcibly producing—ground-breaking discoveries. With this in mind, we hope that the next chapters are both enthralling and inspiring enough for others to follow suit.

Notes

1 Data, as Doyle (2003: 341) explains, refers to diverse connotations according to the theoretical perspectives from which it is defined. From a qualitative meta-analytical point of view, data may be conceived as the content—that is to say, the textual material—of each selected case (Noblit and Hare 1988).
2 In the English literature, qualitative meta-analysis is also referred to as "qualitative meta-synthesis" (Sandelowski et al. 1997), "qualitative-meta-data-analysis" (Paterson et al. 2001), and "meta-ethnography" (Noblit and Hare 1988). All of these nuanced types of qualitative analysis share the component of "meta" and signal, almost without fault, to analysis, synthesis, and interpretation.

4 Young people's spatialities

From physical-material rigidity to virtual versatility

More than one refigured spatiality: Four different analytical perspectives

Young people grow up in a world that is already spatially structured and formed. According to variables such as age, socioeconomic background, and singularities of the area in which they are raised, they become acquainted with an array of different spaces: for example, schools, playgrounds, streets, homes, youth clubs, etc. While some of these spaces are custom-built for (and, as such, even pedagogize) young people, others include a wider array of users (e.g., peers and adults), for they do not expressly target this group. Interactions and coexistence in these spaces targeted at multiple users have the potential to be either harmonious and symbiotic or conflict ridden. Moreover, young people do not merely passively consume their spatially structured (everyday) surroundings. Instead, they are active and competent producers of their spatial worlds. To that end, they enact a *spatial performance* to identify and seize opportunities to use space, symbolically and/or materially (see Chapter 6). In other words, young people (re)construct spaces, spatial arrangements, and orders in their (daily) practices when they use and appropriate spaces for their own purposes and preferences or when they (re)organize and negotiate different spaces. In this chapter, we take a closer look at the spatial dimension of young people's everyday lives: that is to say, their *spatialities*. We therefore echo Holloway and Valentine's (2000a, 2000b) reflection on how thinking about spatiality can encourage research on childhoods, and thus introduce it to new interpretative terrains. Accordingly, we regard both spatiality and space as social constructs. Consequently, spatiality refers to any manner in which space is (re)organized as a social construction. Moreover, drawing on spatiality to perform critical analysis, "contextual" and "created" spaces should be clearly distinguished from one another:

> It is necessary to begin by making as clear as possible the distinction between space per se, or *contextual space*, and socially based spatiality, the *created space* of social organization and production […]. Th[e] contextual, physicalist view of space has deeply influenced all forms of spatial analysis, whether philosophical and theoretical or practical and empirical, whether applied to

DOI: 10.4324/9781003099727-4

> the movement of heavenly bodies or the history and landscape of human society. It has imbued all things spatial with a lingering sense of primordiality and physical composition, objectivity and inevitability. […] [And, thus,] it is an inappropriate and misleading foundation upon which to analyze the concrete and subjective meaning of human spatiality. Space itself may be primordially given, but the organization, use, and meaning of space is a product of social translation, transformation and experience.
>
> (Soja 1980: 209–210; italics in the original)

Against this backdrop, we use *spatiality* to describe and examine the collection of spaces, spatial references, and spatial relations relevant for young people. To put it another way, spatiality encompasses both the multiple spaces young people construct through their (daily) practices and the spatial arrangements and spatial relations that simultaneously shape and are shaped by their actions. In addition, we consider spatiality to comprise the spatial structuring characteristic of spatial arrangements, as well as the interrelationships between them. Thus, spatiality denotes the diverse spaces, spatial organizations, and spatial relations that are meaningful within a young person's everyday life and that result from the ways in which youth(s) and childhood(s) are spatialized. Furthermore, we use spatiality in the plural to indicate that young people's spatialities are diverse in that youth(s) and childhood(s) constitute assorted phenomena (see Chapter 2).

Moreover, in order to analyze such a rich tapestry of young people's spatialities, we outline four *features* that shape and constitute them to a substantial extent: *circumambient spaces around the home*, *insular (archipelagic) spatial structure*, *spatial practices of being mobile*, and *virtual spaces* (see Figure 4.1 and Box 4.1). To be sure, there is a wider array of potential features that shape and constitute young people's spatialities. We have chosen to underscore the abovementioned four characteristics, for they emerged from our meta-analytical findings. These features are not an exhaustive and definitive list, nor do they represent different characteristics of one and the same dimension. Rather, they act as analytically separable aspects of young people's spatialities (for example, pivotal spaces or a particular structuring of a spatial arrangement). All of the features shape and constitute young people's spatialities in their own particular way and appear throughout our meta-analyzed sample, which comprises different geographic contexts (and its consubstantial social, cultural, economic, and political factors).

Regarding the *refiguration of spaces*, our main claim is that young people's spatialities are, increasingly and simultaneously, constituted and shaped by more than one of these driving features. Consequently, young people's spatialities are no longer unambiguous, one dimensional, or dominated by one specific feature—as they were once described by models on the development of young people's spatialities in the German context (see Muchow and Muchow 2012 [1935]; Zeiher and Zeiher 1994). Instead, they have become increasingly multi-layered and complex, for they are impacted by different features that simultaneously overlap, become intertwined, and are made relevant within these spatialities. We therefore conceive the construction, (re)arrangement, interrelatedness, ascribed meaning, and

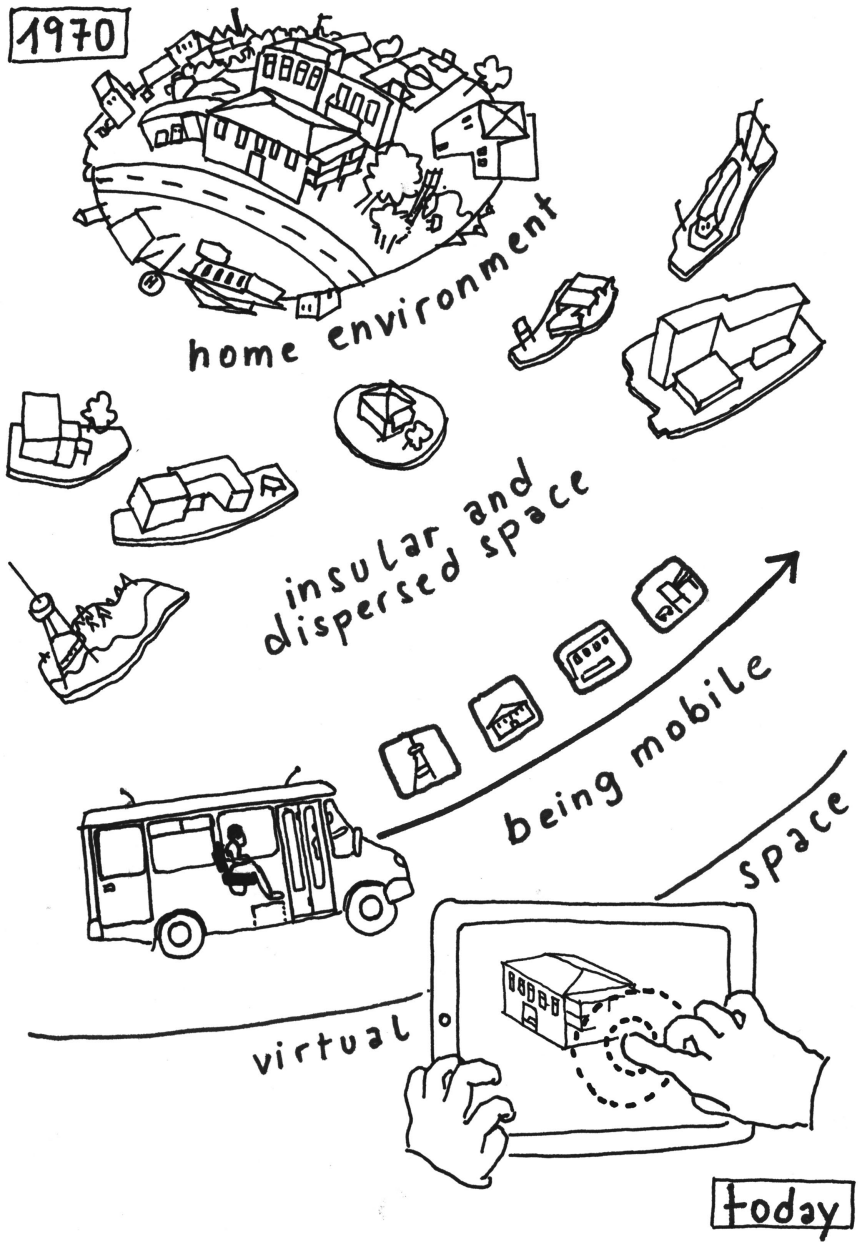

Figure 4.1 Co-existing features of young people's spatialities from the 1970s to today. Graphic: Grit Koalick, visuranto.de, based on own elaboration.

Box 4.1: Features of young people's spatialities from the 1970s to today elaborated from the meta-interpretation

Circumambient spaces around the home: central spatial references within young people's everyday lives where they most frequently spend their time, perform their daily routines, meet and interact with friends, wander about, and make discoveries. Additionally, these spaces are often located within walking distance of young people's homes.

Insular (archipelagic) spatial structure: constellation of dispersed and sometimes distant spaces through which young people's everyday lives and, by extension, spatialities are produced.

Spatial practices of being mobile: young people's (everyday) physical movements between spaces within their spatialities. These practices extend well beyond the mere act of getting from A to B since spaces are also simultaneously being constructed by being mobile, which, due to the potential and opportunities they offer (leisure, survival, and latitude), represent more than mere spatial interstices.

Virtual spaces: The use and consumption of new media have given way to "immaterial, intangible, and territorially unbounded" virtual spaces (Tillmann 2010: 149; own translation), for mediatized spatial practices make it possible to virtually relate to different spaces and connect them with one another.

Source: Own elaboration.

perception of spaces by young people—that is, their spatialities—to be objectivations of their *spatial knowledge*. As knowledge defines actions (Knoblauch 2019), the spatial knowledge of young people can be susceptible to analysis by focusing on the spatialities that both result from and shape their actions. Based on this succinct conceptual framework, next we discuss in more detail each of the four features. Subsequently, and to close this chapter, we draw on three exemplary case studies from our sample to further illustrate the interplay between the features and the multiplicity of young people's spatialities.

A lingering relevance: Circumambient spaces around the home as the nucleus of young people's spatialities

There is a range of spaces that constitute young people's relevant spatial references within the immediate vicinity of their homes, such as the street right in front of their houses or playgrounds in their city district or neighborhood. We refer to this group of spaces as the circumambient spaces around the home, which are often central spatial references within young people's everyday lives because that is where they most frequently spend their time, perform their daily routines, meet

and interact with friends, wander about, and make discoveries. Additionally, these spaces are often located within walking distance. By underscoring and understanding this constellation of spaces that gravitate around young people's homes as one underlying feature of their spatialities, we can shed light on their ability to orientate themselves locally and navigate these spaces somewhat autonomously—which also makes it possible to determine young people's degree of spatial cognizance or nescience (see Chapter 6).

A key finding from our *qualitative meta-analysis* is that the circumambient spaces around the home, despite the many changes to which the refiguration of spaces testifies (see Chapter 2), continue to be a cornerstone within many young people's everyday lives. Interestingly, while early studies in our meta-analysis indicate the prevalence of the circumambient spaces around the home as the spatial reference for young people par excellence, more recent studies show that these spaces are no longer the sole dominant basis of young people's spatialities. As a matter of fact, for some young people today, circumambient spaces around the home are only of subordinate relevance and are even neglected frequently in their spatial practices. Though downplayed and disregarded, circumambient spaces around the home continue to buttress young people's spatialities: now complemented by, coexisting, and overlapping with other features.

An enduring beacon: Circumambient spaces around the home as an unremitting reference to young people's spatial practice

In our meta-analyzed sample, it is readily apparent that circumambient spaces around the home are still germane to young people's spatialities in that many of their spatial practices occur there: playing, roaming, hanging out, etc. Hence, spaces such as the street and sidewalk in front of their houses and other haunts prominently dominate young people's spatial and temporal structures. This particularity can be traced back to the two earliest studies from our sample, which were published in the 1930s (Muchow and Muchow 2012 [1935]) and the 1960s (Pfeil 1965) and whose case studies were located in Germany. Both studies suggest that circumambient spaces around the home were of utmost relevance for young people's spatialities at the time. For example, for young Germans growing up in Hamburg during the 1930s, the street they lived on constituted a "second, outdoor home" (Muchow and Muchow 2012 [1935]: 159; own translation). Furthermore, the interaction these young Germans had with the circumambient spaces around their homes was so intense that the study's authors likened it to a village that is only seldom left: "For all intents and purposes, […] the lives of big-city children were 'akin to village life,' and they rarely got out much" (Muchow and Muchow 2012 [1935]: 158; own translation). Moreover, according to both studies, the spatialities of young people developed and expanded concentrically around the home: "Children experience the world in concentric circles, the nucleus of which is the intimate sphere of the family. From there they can launch their attack on the world, and they can return here for comfort at any time" (Pfeil 1965: 12; own translation). The home, seen like this, represents the anchor of young people's spatialities because, from very early on in their lives, they begin to explore a handful of spaces

that revolve around the home and progressively familiarize themselves with those spaces. Accordingly, the older they get, the farther away they dare to roam. Yet, within this (still homocentric) expansion, young Germans in Hamburg did not necessarily internalize every single space they stumbled upon. Rather, their spatialities were constructed more selectively:

> Situated relatively close to their home and the street on which they live, the children's living environment unfurled layer by layer from this center point. The central layers usually form rings around the neighborhood and are knit closely together, while the peripheral layers primarily radiate in all directions and are usually loosely connected.
>
> (Muchow and Muchow 2012 [1935]: 158; own translation)

These two studies, which have greatly influenced German-speaking debates on young people's spatialities, laid the groundwork for the widespread recognition of circumambient spaces around the home as the realm in which almost all young people's spatial practices unfold. As such, these spaces act as spatial references for young people to venture into wider explorations of other (urban) spaces. Accordingly, ensuing studies have provided evidence of the permeation of the circumambient spaces around the home as the primary activity space of young people (see Chapter 7) across an assorted array of geographic contexts and settings: urban and rural Germany (Tischer and Engelke 1978; Seggern et al. 2009; Gräbel et al. 2015), urban Taiwan (Schak 1972), urban China (Sander 2016), urban India (Bannerjee and Driskell 2002), the suburban United States (Hart 1981), and rural Canada (Cummins 2009). These studies address different types of circumambient spaces around the home (for instance, villages, neighborhoods, communal areas in gated communities, and farms) and cover the period from Muchow and Muchow's (2012 [1935]) study onward. As a whole, synthesized insights from this set of studies indicate the continuous relevance of circumambient spaces around the home for young people's spatialities during the process of the refiguration of spaces.

However, although circumambient spaces around the home still buttressed the spatialities of children in Berlin during the mid-1980s, they seem to have progressively lost significance (Zeiher and Zeiher 1994). More specifically, these young Berliners were not presented with the opportunities they required within the locally bound coherence of the circumambient spaces around their homes: "This traditional model of a uniform living environment requires all children to have access to suitable spaces located within the vicinity of the home for everything they do or need. This requirement can no longer be fulfilled" (Zeiher and Zeiher 1994: 27; own translation). Similarly, German teenagers living in both rural (Bodenfelde) and urban (Hamburg) settings experienced the need to cross the spatial grid defined by the circumambient spaces around the home into their neighborhood and village (Gräbel et al. 2015). This propensity was more accentuated among youth from Bodenfelde in that they repeatedly had to step outside the confines of the circumambient spaces around their homes to ride the bus to school or visit friends in nearby towns, for example. Based on these studies, we can gather that circumambient spaces around the home may have been downplayed, to a greater or lesser extent, by the gradual "invasion" of other spaces

(e.g., the school and friends' houses) and activities into young people's spatialities but never ceased to play a role therein. However, our findings show that an extreme scenario is plausible, in which young people overtly disregard (and virtually do without) the circumambient spaces around the home. We address this counterexample in the following section.

The exception proves the rule: Managing without circumambient spaces around the home

Given that young people spend significant amounts of time in their neighborhoods, it comes as no surprise that the circumambient spaces around the home feature glaringly in their spatialities—after all, young people, particularly during the first stages of their lives, rarely wander around autonomously and are almost never allowed to play without supervision (see Chapter 7). Such a trend, though palpable throughout the collection of studies in our meta-analysis, is far from absolute. In fact, there are young people who forgo altogether the circumambient spaces around their homes in favor of spaces located (much) farther away, which constitute the realm of their daily routines and (spatial) practices. Consequently, the circumambient spaces around the home barely, if at all, shape these young people's everyday spatialities.

German adolescents in Hanover are a case in point as they were typologized by the study's authors according to the various ways they both used and perceived spaces throughout the city (Seggern et al. 2009). While some of these Hanoverians indeed used the circumambient spaces around the home as a spatial reference in their everyday lives since many of their spatial practices took place there, others refrained from using them altogether. Furthermore, the fact that some youths dispensed with the circumambient spaces around their home within their daily routines and trajectories was not necessarily a matter of choice—they had to commute to a nearby city to attend school or participate in other activities. A similar divide, though marked by socioeconomic class as well, was palpable among children who grew up in Taipei, Taiwan, during the late 1960s and early 1970s (Schak 1972). More specifically, working-class children regularly used the circumambient spaces around their homes, for "[t]hey play outside, usually not far from home, but at least out of immediate earshot of their mothers, who may be [sic] too busy working to notice them anyway" (Schak 1972: 199). In contrast, middle-class children were notably restricted to spending most of their time inside their houses and were only set free to attend school or visit playmates:

> The children play indoors or in the yard if one is available but, in all cases, inside the outer walls. […] Pre-schoolers go out on the street only when accompanied by an adult or older sibling, and those in primary school go out alone en route to and from school.
>
> (Schak 1972: 197)

Thus, circumambient spaces around the home were a sort of diffused area within these children's everyday spatialities, for they only fleetingly traversed them to

get to where they were allowed to go. Similar to class, age is another element that seemingly tips the scales as to whether circumambient spaces around the home maintain or lose relevance for young people's production of their spatialities. For instance, expat adolescents living in gated communities in Shanghai, China (Sander 2016), as opposed to the younger children who freely roamed the communal areas within the gated compound, felt the urge to transgress its (symbolic and physical) confines—thereby dissolving, as it were, the relevance of the circumambient spaces around their home (which, in this specific case, were explicitly demarcated by material boundaries). Aside from socioeconomic background and age, the perception of particular spaces also plays a role for young people in attributing importance to circumambient spaces around the home. For example, Spanish youths deliberately carried out their leisure activities in spaces located in the city center of Santa Cruz de Tenerife because they not only felt much more at ease there but also considered the spaces in the immediate vicinity of their homes (and within their neighborhoods) to be unsafe (Díaz-Rodríguez et al. 2015).

Overall, early studies (Pfeil 1965; Muchow and Muchow 2012 [1935]) bring to the fore the somewhat axiomatic character that circumambient spaces around the home once had within young people's spatialities. However, while their centrality began to dwindle gradually in accordance with age, class, and spatial perception, the findings outlined above show that circumambient spaces around the home (save for specific cases, such as the young expats who basically render them irrelevant) are still very much part young people's everyday spatialities. In the next subsection, we take a closer look at various factors that make circumambient spaces around the home either relevant or unimportant and how this impacts the way in which young people produce spatialities.

(Lack)luster: Influences on the (ir)relevance of circumambient spaces around the home

Our qualitative meta-analysis illustrates the existence of a broad range of factors that, to varying degrees, determine how relevant or not circumambient spaces around the home are for young people's spatialities. The opportunities offered by circumambient spaces around the home, age, gender, and parental attitudes, among other elements, demarcate the level of (ir)relevance those spaces may or may not have.

With regard to opportunities that are close at hand, the spatial practices of children from an urban neighborhood in Oakland, California (Berg and Medrich 1980), for instance, revealed a lack of attractive opportunities offered by the circumambient spaces around their homes. This was evident based on the fact that the children either played inside or visited spaces outside their neighborhood to fulfill this need. Likewise, due to the scarcity of appropriate infrastructures nearby, youths living in the rural German town of Bodenfelde were constantly required to cross the activity space delineated by the circumambient spaces around their homes in order to attend school or meet peers (Gräbel et al. 2015). Similarly, circumambient spaces around the home may be rendered unimportant when young people cannot couple

their interests and preferences with them, as illustrated by the case of adolescents in Hanover:

> The adolescents increasingly expand their neighborhoods to include locations in which their spatial practices unfold, which are distributed across the city away from home. […] Although these distances increase as they grow older, this is not an intentional decision made by the adolescents but rather a circumstance they are forced to accept. If they find opportunities for contact, recreational activities, etc. within their own neighborhood, then their spatial activities primarily take place there.
>
> (Seggern et al. 2009: 130; own translation)

By the same token, the study on expat teenagers who felt trapped inside their gated communities in Shanghai (Sander 2016) demonstrates that both the perception and assessment of circumambient spaces around the home not only differ in accordance with age but also change over time. Thus, while small children enjoyed and made the most of the common areas typically offered by gated compounds to their residents, teenagers saw these spaces as boring and did not use them, instead orientating their spatial practices outside of the gated community and constantly crossing its physical boundaries to leave the circumambient spaces around the home behind. Altogether, we see this as both a transversal factor across this collection of studies and a determinant of the (ir)relevance of circumambient spaces around the home. However, seeking (and eventually finding) appealing opportunities elsewhere is not as easy as it may sound for young people. They are dependent on certain means that enable them to do so and must deal with several hurdles along the way: for instance, distances to be covered on foot or by bike, a connection with public transport, or the possibility and willingness of parents to take them.

Furthermore, as can be seen in the examples described above, young people's age is another decisive factor, for they tend to expand their activity space as they grow older. Oddly enough, the cases reviewed indicate that young people continuously expand their activity space over time without necessarily forsaking the circumambient spaces around the homes. Nevertheless, in some instances, they do de-emphasize them so that their activity space can make room for other distant—now more relevant—spaces to be incorporated into their spatialities. Such developments could be related to new and different interests, requirements, and spatial practices of older young people that are not compatible with the material opportunities offered by the circumambient spaces around the home. Moreover, we believe this is related to a growing degree of independence from parental restrictions and control (see Chapter 7) and, as such, an expression of the process of insularization.

The relevance of circumambient spaces around the home is also shaped by gender, whose effect can be observed among young Germans who grew up during the late 1920s and early 1930s, "since boys back then were 'more expansive'" (Muchow and Muchow 2012 [1935]: 96; own translation) than girls. More recent research also demonstrates that whereas boys often freely roam and cover relatively large areas (and, in so doing, diminish the importance of circumambient around the

home), girls are almost de facto only allowed to navigate the spaces within the immediate vicinity of their homes, which accounts for their continued (and even intensified) relevance within their daily spatialities (Bannerjee and Driskell 2002; Swart-Kruger 2002; Hammond 2003). Additionally, such gender divides arise primarily from parental guidelines and restrictions (see Chapter 7); however, they may also be influenced by parental attitudes and mindsets. For example, the cultural values and socioeconomic means of children's parents in late 1960s and early 1970s Taipei largely defined the degree of relevance attributed to circumambient spaces around the home:

> Working-class children, because their homes are often small and because their parent's value structure permits it, play outside. Middle-class children, on the other hand play inside, mainly because their parents' values demand it and because their generally larger house size permits it.
>
> (Schak 1972: 203)

Accordingly, parents' assessments of young people's safety in the circumambient spaces around the home, which stem from their own experiences, are a decisive factor. This is demonstrated by the fact that working-class mothers'

> familiarity with such an environment makes them see it as being less dangerous than it appears in the eyes of a middle-class mother who has never had close contact with it and has been warned against it all her life.
>
> (Schak 1972: 201–202)

All in all, there is a range of factors that lessen or even deepen (notably for girls) the relevance of circumambient spaces around the home, which, in both cases, signal their continuity within young people's production of spatialities in their everyday lives. Yet, while early studies indicate how pivotal and dominating circumambient spaces around the home were for young people's spatialities, we contend that they have increasingly become just one of several features that shape those spatialities. To be sure, circumambient spaces around the home are still pertinent, but it just so happens that they are rendered dispensable at times. Furthermore, the fluctuating importance of circumambient spaces around the home reflects the production of a wider array of spatialities by young people, which in turn are an expression of the broader process of the refiguration of spaces. Likewise, we maintain that changes in young people's spatialities point to evolutions in their spatial knowledge. We thus make strives to explore those changes when, for instance, circumambient spaces around the home are supplemented, superimposed, and even replaced by other features that incorporate new spaces and spatial references into the production of young people's spatialities. Diverse spatialities arise as a result, underpinned by the need to be mobile and dispersed spatial arrangements, among other factors. An "insular structure," seen as a spatial arrangement encompassing multiple and dispersed spaces, is the focus of the next section.

A sundry and scattered archipelago of relevant spaces: Interwoven bedazzling islands amid a dimmed sea

Our meta-analysis shows that circumambient spaces around the home are not the only feature that reinforce young people's spatialities. On the contrary, young people's daily trajectories and routines progressively reflect an insular spatial structure (or an archipelago) composed of a constellation of scattered and sometimes distant spaces, which has emerged as one more feature of young people's spatialities. By alluding to this insular or archipelagic character, we echo Zeiher and Zeiher's (1994) notion of "insularization" to denote the various spaces that young people weave together through their quotidian spatial practices. More specifically, examples of "islands" are institutional (schools and clubs), public (playgrounds and sports facilities), private (friends' houses), and commercial (zoos or shopping centers) spaces that are meaningful to young people. It should be noted that these islands tend to be clearly delineated spaces strewn across a geographic area, which, as a whole, exhibit a network-like pattern that mimics that of an archipelago. The connections represent the actual movements of young people between the islands. It is precisely this act that brings the islands to the fore, while the "sea"—the covered distances and in-between spaces—is usually relegated to the background.

In contrast to circumambient spaces around the home, the insular spatial structure emphasizes how young people's spatialities encompass, and are therefore structured by, multiple spaces, whose relevance to their everyday lives is not determined by immediate spatial proximity to or walking accessibility from their homes. Hence, while circumambient spaces around the home describe largely familiar, readily accessible, and frequently visited spaces organized around a definite gravitational center, the insular spatial structure exemplifies a more complex organizational principle in which various spaces are arranged without a specific driving axis. That being said, an insular spatial structure may also incorporate circumambient spaces around the home into its archipelago as islands. At the same time, it is even feasible for circumambient spaces around the home to be replaced by an insular spatial structure. In summary, young people's spatialities that are characterized by an insular spatial structure can be understood as spatial arrangements that can supplement, overlay, supersede, and intersect with circumambient spaces around the home. In light of our findings, below we discuss the relevance, various articulations, and causes of an insular structuring of young people's spatialities. We eventually argue that a spatiality founded on an insular spatial structure can cause young people to feel ambivalent about their everyday spaces.

Navigating archipelagos: An insular spatial structure as a feature of young people's spatialities

Young people's spatialities characterized by an insular spatial structure can be discerned in both urban and rural settings in geographic contexts throughout the Global South and Global North. This feature can be traced back to the late 1960s and early 1970s in the aforementioned case of middle-class children in Taipei, whose spatialities, in comparison to those of their working-class counterparts,

were remarkably restricted to a handful of spaces, namely, their home, school, and friends' houses. Thus, they "either stay inside their homes where they are shielded from the outside by a wall, or associate with old friends and kinsmen who tend to be scattered throughout the city" (Schak 1972: 200). We can infer that these middle-class children mainly spent their time within the islands dispersed across this urban space. Such a scattering also characterized the spatialities of children who grew up in former West Berlin during the mid-1980s in that they were subjected to insularization (Zeiher and Zeiher 1994). These children's everyday lives were spatially fragmented as their spatial practices of playing, learning, and the like took place in specific geographically dispersed spaces: schools, playgrounds, and friends' houses. In addition, the way in which these young Berliners perceived spaces is one of many upshots of their spatialities having an insular structure:

> The children experienced their spatial environment as being split into spaces intended for spending time and spaces intended only for passing through: spaces made for children and spaces that were dangerous for children; […]. These spaces were defined by the parents. Until they started attending school, children moved between these spaces only if accompanied by an adult. The distances were only as far as the mothers' capability to travel with their cars. The individual living spaces of Mina, Thomas, Stefan, and Silke after moving into the Ulmenviertel neighborhood corresponded by and large to the model of an insularized living environment from the earlier years.
>
> (Zeiher and Zeiher 1994: 131; own translation)

To be sure, such a structuring of spatialities does not correspond to the one described above, which is defined by circumambient spaces around the home. As a matter of fact, this study's authors made the case that an insular spatial structure was the new dominant foundation in young people's spatialities:

> This traditional model of a uniform living environment requires all children to have access to spaces in their immediate vicinity that provide everything they might want or need. This requirement can no longer be fulfilled. A spatial world, which is segregated by many functional spaces and characterized by islands separated from one another, corresponds to a different model: the model of an insularized living environment.
>
> (Zeiher and Zeiher 1994: 27; own translation)

Be that as it may, we do not entirely subscribe to the claim that circumambient spaces around the home have become entirely irrelevant. Instead, we interpret the articulations of an insular spatial structure as the emergence of yet another relevant feature that characterizes young people's spatialities.

Furthermore, indications of young people's spatialities being shaped by an insular spatial structure are already present in the studies conducted during the 1970s. Likewise, this growing phenomenon cuts across manifold geographic contexts and

particular instances: children in Berlin (Zeiher and Zeiher 1994), youths in Hanover (Seggern et al. 2009), teenagers in urban Hamburg and rural Bodenfelde (Gräbel et al. 2015), middle-class children in Taipei (Schak 1972), children in different neighborhoods of Los Angeles (Buss 1995), expat youths in Shanghai (Sander 2016), homeless Indonesian boys in Yogyakarta (Beazley 2016), and Bolivian young people in the rural community of Churquiales (Punch 2000). Interestingly, while the spatialities constructed by such a manifold range of young people are reinforced by an insular spatial structure as a common denominator, their articulations are related to various specific contextual factors. In the next section, we shed light on these particularities and their causes.

Unveiling undertows: The underlying factors of young people's archipelagic spatialities

As dissimilar as the previously mentioned geographic and temporal circumstances are, all of the young people from our studies produced their spatialities through an insular spatial structure. Nevertheless, the synthesis of findings makes it readily apparent that the reasons behind and the factors influencing such an insular spatial structuring may vary greatly between geographic contexts. For example, children in Los Angeles living in different neighborhoods during the 1990s (Buss 1995) insularly structured their spatialities as they retreated to safe islands amid a sea of potential danger: "Because of their fears, many children don't traverse spaces in their neighborhoods, and instead move about in limited or restricted play zones within their yards or homes" (Buss 1995: 346). Similarly, schools and commercial spaces constituted safe islands (see Chapters 5 and 7]. In essence, the insular structure of these children's spatialities was shaped by and resulted from spatialized senses of (in)security that differentiated between dispersed safe spaces to visit and unsafe spaces to avoid.

In contrast, the cases of Bolivian young people (Punch 2000) and homeless Indonesian boys (Beazley 2016) show how an insular spatial structure is related to duties and social reproduction. Bolivian young people in the rural village of Churquiales fulfilled various duties—from attending school to running errands and helping with agricultural tasks—within their everyday lives. The insular spatial structure of their spatialities is reflected in the dispersed locations of these duties and concomitant spatial practices:

> Children went regularly to the community square, as that was where the school was. […] Children went to the river or irrigation canal nearest their homes on a daily basis to fetch water (except those who had recently acquired drinking water on tap on their homes), and also sometimes to bathe, to irrigate crops or to play. They also went up the hillside nearest their homes to take goats and/or cows out to pasture, to fetch them in, or to search for a missing animal. Children used a wide range of spaces, often travelling great distances with animals or to carry out errands.
>
> (Punch 2000: 51–53)

The spatialities of these young people were therefore based on an insular spatial structure manifested in the spatial dispersion of the various duties inscribed in their spatialities. Similarly, Indonesian street boys in the city of Yogyakarta produced their spatialities by connecting multiple different spaces that presented them with specific opportunities to fulfill their fundamental needs and desires. Moreover, their insular spatial structuring, in our view, represents a survival strategy in the face of the hardships of street dwelling:

> The places the children marked on their maps were important to them […]. They were spaces appropriated as a strategy for survival, for fulfilling specific needs such as eating […], sleeping […], toilet […], earning money […], feeling safe […], forming friendships and finding pleasure […], washing […], and having sex.
>
> (Beazley 2016: 178)

In other words, the insular spatial structure underpinning the daily spatialities of these street boys conflated a series of scattered spaces that catered to their survival and social reproduction.

Rather than out of duty (Bolivian rural children) or utmost necessity (Indonesian homeless boys), other young people's daily spatialities are insularly structured in accordance with valued spatial practices and experiences. Adolescents in Hanover (Seggern et al. 2009), for instance, in their need to traverse other irrelevant spaces to get to where they actually wanted to go, produced archipelagic spatialities. Similarly, expat teenagers growing up in gated communities in Shanghai (Sander 2016) crossed, somewhat impetuously, their borders in their quest for exciting and stimulating spaces in the city center. In a sense, this reverses the aforementioned argument that spatialized senses of (in)security can act as a factor to shape spatialities in an insular way. Instead of retreating from an environment perceived as hostile and insecure to safe islands, these expat teenagers perceived the safe gated community as secluded and isolated and consequently tried to escape from it:

> All teenagers express a strong desire to transgress these spatial barriers of the compound and the associated social, cultural and age-based boundaries. Routinely moving back and forth from international schools to expatriate housing estates, students continually seek out spaces outside that they can claim themselves during breaks or on weekends.
>
> (Sander 2016: 243)

In the case of German youths in the rural town of Bodenfelde (Gräbel et al. 2015), we find that the village—seen as enclosing the circumambient spaces around the home—is not only a relevant feature of their spatialities in and of itself, but is also insularly integrated into their spatialities. As these youths frequently commuted to other towns to meet peers, attend school, and partake in other activities, their village appears as one of many islands within the insular structure of their (everyday and sporadic) spatial practices.

In a much broader sense, an insular spatial structure in young people's spatialities can also be connected to wider societal and spatial developments. In the German context, this was clearly bound to the process of the functional differentiation of space (Zeiher and Zeiher 1994). As spaces became specialized and tailored to young people and their specific practices, they were separated from adult-oriented spaces. Consequently, young people were increasingly ousted from other spaces and confined to those overtly dedicated to them (such as playgrounds, youth clubs, or schools, see Chapter 7), from which an insular spatial structure emerged. As we have sustained thus far, the reasons and factors behind an insular spatial structure are multifaced and can concern specific parts of young people's everyday lives (such as practices of social reproduction or coupling their preferred practices with particular spaces). Subsequently, we explore some of the effects that archipelagic spatialities have on young people's spatial practices and perceptions.

Ambivalently cruising through spatial interstices: The effects of an insular structure on young people's spatialities

Various, and sometimes contradictory, effects can be observed in expressions of young people's spatialities that are characterized by an insular spatial structure, which, to varying degrees, impact their experience of space, self-determination, spatial practices, and mobility. Experiences with insularly structured spaces were reported among children from mid-1980s West Berlin (Zeiher and Zeiher 1994) and mid-1990s Los Angeles (Buss 1995). Young apprehensive Angelinos, for example, developed the tendency to retreat to safe islands within their insecure archipelagos due to spatialized sentiments of (in)security, which reveal how tapered their experiences of space actually were: "Many [children] live in neighborhoods where they are exposed to chronic urban violence and other formidable environmental stressors. Because of this, they are having highly constrained environmental experiences. […] In many ways, their worlds are contracting rather than expanding" (Buss 1995: 350). Children in Berlin, on the other hand, though not immersed in a landscape of insecure spaces like their US-American counterparts were a decade later, experienced their quotidian archipelagic spaces as both differentiated and fragmented (Zeiher and Zeiher 1994). Both studies illustrate that children perceive these spaces within insularly structured spatialities as fragmented, for the diverse islands of their archipelagos are assigned a specific *spatial discernment-signification* (see Chapter 6): dangerous, safe, apt to hang out, passages connecting islands, etc. Accordingly, the insular spatial structure underpinning young people's spatialities mirrors their subjective experience of space and, by extension, their spatial knowledge.

Although it may be inferred, to a certain extent, that restricted experiences of space are almost always fragmented, the cases of Indonesian street boys (Beazley 2016) and rural Bolivian young people (Punch 2000) ostensibly suggest otherwise. In both instances, though an insularly structured spatiality was at play, Indonesian boys and Bolivian young people seemed to have a rather comprehensive spatial command of their archipelagos—notably, all the in-between spaces that had to be

navigated—for they were quite familiar with their city streets and rural community, respectively. We argue that this was made possible by the interplay between several features that concurrently shape their spatialities (we come back to this point later in the chapter). While the spatialities of Indonesian homeless boys and rural Bolivian young people did not lead to a fragmented experience of space, they were traversed by a restricting-enabling ambivalent tension. More specifically, the youths in the rural village of Churquiales connected dispersed spaces through their daily spatial practices of duty and learning (see Chapter 6) and were faced with accentuated temporal restrictions given how time-consuming the assigned tasks were. At the same time, and due to this very reason, these young Bolivians constantly had the opportunity to carry out their spatial practices more autonomously (to play, for instance) because they navigated their archipelagos outside of adult supervision:

> Children's use of space in rural Bolivia is therefore not very restricted and enhances their physical independence from adults. […] Spatiality rather than temporality is the vital component of children's strategies to create their own play spaces. Children do have boundaries set by adults that limit their possibilities for freedom, yet within these constraints they assert their autonomy and play an active role in their social worlds.
>
> (Punch 2000: 58–59)

Similar ambivalent effects also came to the fore in the case of the homeless Indonesian boys in Yogyakarta (Beazley 2016) since their spatial tactics of survival consisted of constantly turning to an array of spaces that afforded them a certain degree of independence in the midst of highly contested and controlled urban public spaces. As marginalized as their daily trajectories and routines were, these young street dwellers managed to turn the tables and cushion their extreme living circumstances by constantly cruising from one island to another (thus avoiding becoming dependent on a single space, which would have made them vulnerable). Thus, they

> [h]ave contested their own exclusion by appropriating specific places in the city and by constructing a network of entwined spaces for their everyday survival. In Yogyakarta, these chosen places reflected the children's social marginality, which may be understood as the children's own produced "urban niches" in which they could earn money, obtain food, and feel safe, despite the hostility of outside forces.
>
> (Beazley 2016: 187)

Seen like this, the insularity shaping their spatialities came about as a response to both a primeval survival instinct and the need to acquire enough independence and autonomy to then stabilize their inescapably brittle everyday lives as inhabitants of the streets.

Insularly structured spatialities, as evinced by these two studies, have ambivalent effects on young people's everyday lives and spatial practices. One the one

hand, they make it necessary to visit and connect several islands, which can be quite time-consuming as it requires young people to constantly be on the move. On the other hand, the insularity offers suitable opportunities for young people to gain self-determination and autonomy over their daily lives and spatial practices. Moreover, the ability to be mobile and link scattered spaces with one another represents not only a consequence of but also a precondition for an insular spatial structure. For this reason, weaving islands together both potentially results in greater autonomy and potentially leads to opportunities that would otherwise not be readily available to young people if they were not able to navigate the spatial interstices of their archipelagos on their own.

Based on the points outlined throughout this section, we contend that an insular spatial structure has become a recurrent underlying feature of young people's spatialities across the social and geographic contexts represented in our meta-analyzed sample. Furthermore, while such spatial and archipelagic insularity does in fact constitute a common denominator, its causes (e.g., linking spaces with spatial practices) and consequences (e.g., a fragmented experience of space) are multifarious. In any case, young people's spatialities are not underpinned by just one feature or another; thus, neither the circumambient spaces around the home nor the insular spatial structure should be regarded as a definitive determinant. As a matter of fact, spatialities may be bolstered by both features as the latter extends and supplements the former: for instance, when young people attend school in a nearby town (Gräbel et al. 2015). Similarly, a sampled study on rural Swiss youths (Fuhrer and Quaiser-Pohl 1999) proved that archipelagic spatialities were far from an intrinsic phenomenon.

Throughout this chapter, we have alluded to a third fundamental feature of young people's spatialities: the practice of being mobile. The next section focuses on this feature and emphasizes the practices of being mobile that go beyond the mere connection of two spaces.

More than simply sailing back and forth between islands: Mobility and being on the move in young people's spatialities

This section focuses on young people's practices of being mobile, understood as their everyday physical movements. Being mobile is also discussed as a third fundamental feature of young people's spatialities. In the previous section, we hinted at its significance, given that islands are interconnected within insular spatial structures by means of practices of being mobile. However, while being mobile is certainly quintessential for archipelagic spatialities to crystallize, it also extends well beyond the mere act of getting from A to B. Indeed, moving amid in-between spaces may be more meaningful to young people than it might seem at first glance, for these movements simultaneously produce new spaces, which, due to the potential and opportunities they offer, serve as more than mere spatial interstices. To examine these processes, we discuss three specific examples: being mobile as a leisure activity, being mobile as a coping strategy in severe circumstances, and being mobile as a means of independence in unsupervised spaces of transit.

It's not the destination, it's the journey: Being mobile as a leisure activity

In studies on Australian (Malone and Hasluck 2002), German (Seggern et al. 2009), and Spanish young people (Díaz-Rodríguez et al. 2015), practices of being mobile appear as a type of leisure activity in which paths, rather than destinations, function as an engine for young people to produce their spatialities. Therefore, being mobile, be it wandering about or making your way somewhere, seemingly develops a value and detaches itself from serving the sole purpose of joining scattered spaces. That is precisely the case for young Melburnians who, as part of the follow-up study on the *Growing Up in Cities* project, were designated as "roamers." This typology refers to "young people, generally Anglo boys between the ages of 12 and 14, who wander at large over their town and other neighbourhoods, either alone or in small groups of twos or threes. The street offers them opportunities for discovery and exploration, and the street and its associated spaces are their playgrounds" (Malone and Hasluck 2002: 95). These young people got a thrill out of navigating their suburban neighborhood streets freely and "constantly moving on and 'looking for action'" (Malone and Hasluck 2002: 95).

Similar to the Melbourne roamers, Hanoverian teenagers' spatialities, which were overly typologized in accordance with uses and perceptions of space (Seggern et al. 2009), were characterized by a number of spaces through which they often meandered. Young interviewees reported that they frequented these spaces because they considered them to be suitable for roaming and meeting friends and saw them as readily accessible (i.e., public). However, relevance is not ascribed to specific spaces that were visited or traversed, but rather to the ability to zigzag through them:

> Without rhyme or reason and open to spontaneous reactions, they ramble by foot through changing local spaces scattered across the city—the *dérive* is their strategy to being on the move. Bus stops, public institutions, kiosks, and soccer fields within their spatialities represent familiar addresses and ports of call. They link the local spaces on a large scale using public transport. Public open space serves as their stomping grounds because they are with other people. Meeting and communicating with each other is the main reason behind their being on the move.
>
> (Seggern et al. 2009: 115; own translation; italics added)

It is worth noting that these German adolescents roamed in a twofold sense—between and within the particular islands in their archipelagic spatialities. While they extended their *dérive* to more distant spaces by riding the public transportation, they enjoyed wandering about on foot to explore these islands. The fact that these adolescents turned to being on the move together, mingling while exploring new environments on foot, highlights the specificity of being mobile as a leisure activity. Similarly, adolescents in Santa Cruz de Tenerife, Spain, described during interviews what are referred to as "network spaces of transition" (Díaz-Rodríguez et al. 2015: 87) as a central feature of their spatialities. Although this designation

implies that the spatialities of these young Spaniards were determined by an insular spatial structure, their accounts revealed that the nodes connected through spaces of transition were not the drivers of their spatial practices of being mobile and, consequently, of their spatialities. Instead, since they showed a remarkable affinity for strolling throughout their network of spaces, it was the spaces of transition and movement between nodes that were significant within their spatialities, thus bolstering those spatialities in turn. Therefore, rather than being based on node-like destinations, the trajectorial journeys are what underlie the constitution of these adolescents' everyday spatialities.

Overall, insights from these studies show how young people's spatial practices of being mobile supersede the intrinsic purpose of interconnecting spaces within their spatialities and become a meaningful central action. While navigating the spatial interstices of their archipelagos, far from simply setting out to reach a goal, young people make destinations and journeys converge, which ultimately become one and the same.

Catalyzing survival: Being mobile as a means of coping with harsh circumstances

Whereas the previously reviewed studies account for how the practices of being mobile can be an enjoyable activity, in quite different circumstances being mobile can also constitute a means of survival. For Indonesian boys dwelling on the streets of the city of Yogyakarta (Beazley 2016), being on the move represented a coping mechanism for dealing with unstable vulnerable living conditions and an overarching social reproduction. As a result, specific practices of being mobile largely determined the daily spatialities of these young boys living on the margins of society in that many of them, for instance, took the bus to beg or played music to earn money:

> Many of the street boys drew their maps of the city in relation to bus routes. […] The map [of an interviewee] is a fascinating conception of space and mobility throughout the city, as [its] […] patterns of information are directly connected to the way he earns money, and the various bus routes along [which] he travels when busking.
>
> (Beazley 2016: 176–177)

Here, instead of representing a mere means of mobility, the bus was an actual survival vessel. Furthermore, some of the street boys even escaped elsewhere while things cooled down on the streets they usually navigated or simply for a change of scenery:

> During the time of research, children left Yogyakarta by train if they were in trouble with the authorities, if earning opportunities were bad, if there were police 'cleansing operations', if they had fallen out with someone, or if they were just looking for adventure or to follow friends.
>
> (Beazley 2016: 179)

Comparably, adolescents growing up in Lusaka, Zambia, at the turn of the 21st century (Gough 2008) recurred to being mobile as a strategy for finding a job, particularly male adolescents from low-income neighborhoods. On their quest,

> young people talked about how you have to 'move around' if you want to find a job. This often involves walking from place to place asking for work. Many have not despaired of finding a job and some of the young men spent several days every week looking for work in Lusaka.
>
> (Gough 2008: 248)

For these young Zambians, walking was not a spatial practice of being mobile born out of choice, as was the case for their Australian, German, and Spanish counterparts, but rather out of necessity due to scarce living conditions, akin to the Indonesian street boys. As long as these adolescents continued searching for employment, their daily spatialities were prominently shaped by their being on the move; once they managed to land a job, this feature would most likely gradually lose its prominence.

In these two specific geographic contexts, young people's spatial practices of being mobile represent coping strategies for tackling the harsh and extreme circumstances that permeate their everyday lives. Thus, being mobile, as an important feature of these young people's spatialities, acts as a survival catalyst.

Moving through blind spots: Being mobile as means of independence in unsupervised spaces of transit

Under certain circumstances, spatial practices of being mobile may present young people with opportunities to have more autonomy and self-determination. Given that young people (are able to) move around on their own, the time of being mobile serves as liberating moments without any adult supervision (see Chapter 5). For example, in the study on Zambian adolescents in Lusaka (Gough 2008), most low-income students had to walk up to six kilometers to school. But what at first glance appears to be a remarkably time-consuming daily journey offers adolescents a suitable space and time to be at ease, since "[d]espite the long distances, for many of the young people the journey to and from school was a period of freedom from adult control during which social relations with peers were strengthened" (Gough 2008: 247). A similar situation could be observed in rural Bolivia (Punch 2000), where young people perceived going back and forth from home to school as a space instilled with freedom in which they were not forced to comply with the extensive duties imposed on them by their parents:

> On the way home from school, I observed that children took particular advantage of their time together by playing along the way and delaying their return home. […] Consequently, children nearly always returned later to their homes than really need be, and their parents often complained to them about this.
>
> (Punch 2000: 56–57)

By and large, in addition to being a leisure activity or survival device, spaces of transit can also be transformed into blind spots within young people's spatialities. As such, they provide young people with enough *spatial liberty* (that is, the availability of or need for roaming latitude based on feelings of (in)security-ease; see Chapter 6) for them to shirk their responsibilities and do as they please.

As we have discussed in this section from distinct perspectives, practices of being mobile reflect the intrinsic importance of mobility and being on the move in young people's everyday lives. Because being mobile is indeed much more than sheer interconnecting movements across insular spaces, insularly structured spatialities and being mobile are indivisible. We therefore sustain that young people both reproduce and deviate from the logic of what is referred to as trajectorial space, which, depending on circulation and mobility, depict spatial structures that facilitate the flows and movement of people (Knoblauch and Löw 2020; Löw and Knoblauch 2021). Specific examples of such trajectorial spaces include streets and public transportation routes. Our findings indicate that young people reproduce these spatial structures when, for instance, they ride the bus to go to school or to meet friends. Nevertheless, in their practices of being mobile, young people may diverge from this predefined logic of facilitating circulation and make use of trajectorial spaces to roam idly, ride buses to panhandle, or delay their way back home from school to play for a while. Therefore, we consider spaces to be constructed as a result of being mobile, thus representing an integral part of young people's spatialities entangled with, intersected by, and supplemented with other features that characterize them.

Young people's spatialities go online: Virtual spaces as a novel emerging feature

With the proliferation of widespread access to the Internet among more and more (young) people, new spatial arrangements and spatial relations have emerged. In addition, the transition from static to mobile web navigation—brought about by technological revolutions that have rapidly delivered smaller, portable, and even wearable gadgets—has also triggered profound spatial transformations over the past decades. This use and consumption of new media have given way to "immaterial, intangible, and territorially unbounded" virtual spaces (Tillmann 2010: 149; own translation), for mediatized spatial practices make it possible to relate to and connect different spaces with one another in the virtual realm. Below, we draw on the term virtual space to describe spatial arrangements, identified in the meta-analyzed case studies, that are constituted through the use of the Internet, both via fixed and mobile devices (such as desktop computers, laptops, or mobile phones). Moreover, these particular uses of the Internet and their accompanying online practices encompass mediatized spatial references and spatial relations to other spaces regarded as virtual space.

The rapid process of *digital mediatization*, the evolution of the Internet, and the widespread availability of mobile devices explicitly target young people. What is more, entire generations of young people are considered digital natives nowadays, meaning that they grew up routinely navigating virtual spaces to communicate

online, for example, with peers, friends, and other people. Furthermore, the International Telecommunication Union (ITU) estimates that in 2019 around 69% of youths aged 15–24 were using the Internet worldwide. Yet, that means not all young people use virtual spaces (International Telecommunication Union (ITU) 2020: 7).

Even though not all young people use the Internet and virtual spaces, we still consider virtual spaces to substantially (and rather inadvertently) impact the production of their spatialities. To be sure, this tendency is far from fleeting and seems to be gaining traction by the minute. Against this backdrop, virtual spaces are seen as a fourth, rapidly emerging feature of young people's spatialities, to the degree that they blend into and become pivotal in young people's everyday lives. Moreover, we discuss how young people's online spatial practices, on the one hand, affect their spatialities by pluralizing their spatial references and, on the other, link (and merge) virtual and physical-material spaces.

A sudden irruption: Virtual spaces as an integral constituent in young people's everyday lives

Virtual spaces appear in and shape the daily routines and rhythms of the vast majority of young people across the globe. Within our meta-analyzed studies, this tendency can be observed as early as the turn of the 21st century among young Britons (Holloway and Valentine 2001) and Australians (Malone and Hasluck 2002). These young people, moreover, went online to chat with and meet other people from all over the world and to inform themselves about topics of interest (such as popular culture or sports). Similarly, virtual spaces were deeply entrenched in the everyday lives of young Portuguese about a decade later due to widespread broadband connections, the sinking costs of Internet services, and the spread of home-based wireless networks: "The Internet can now be 'always on', permanently available to be used at will. Transcending physical home borders to get into the cyberspace, on a causal or a routine mode, is a common experience" (Almeida et al. 2014: 1441). We also assume that this development was reinforced further by a boisterous and affordable offer of gadgets. Now, virtual spaces do not irrupt suddenly into young people's daily lives exclusively in the Global North. On the contrary, a study on the use of social network sites (SNS) showed that Peruvian adolescents who grew up in a peripheral settlement of the city of Lima frequently used the Internet and made virtual spaces a fundamental part of their everyday lives:

> More and more, the use of SNSs can be considered a part of young people's routine in social life. […] They state if they would be disconnected from SNSs forever, 'my life would change; I would feel like I was missing something' (Paula, 17) and 'my life would be a disaster' (Maria, 21).
>
> (Arends and Hordijk 2016: 238)

Thus, virtual spaces, rather than extraordinary and disruptive, have become intrinsically linked with young people's everyday lives in different socioeconomic and

geographic contexts all over the world. Young people turn to virtual spaces to communicate with peers and other people, obtain information on topics that interest them, play online video games, socialize on social networks, and develop new skills (Holloway and Valentine 2001; Malone and Hasluck 2002; Seggern et al. 2009; Almeida et al. 2014; Díaz-Rodríguez et al. 2015; Gräbel et al. 2015; Arends and Hordijk 2016; Hatuka and Toch 2016; Million et al. 2019; Saif 2019). Furthermore, this trend has also had consequences for young people's spatialities since, as we demonstrate in the next subsection, the use of virtual spaces makes it possible for new spatial arrangements to take root and flourish.

An outburst of pluralizing spatial references: The effects of virtual spaces on young people's spatialities

Young people's use of virtual spaces affects their spatialities in manifold ways. For instance, young people can enlarge the geographic scope of their spatialities, make contact with faraway spaces, and be embedded in and interact with multiple spaces simultaneously. Given that online spatial references do not need to be physically present at remote spaces, young people can easily and frequently relate to them. Specifically, this ability is exhibited by young Britons chatting with their US-American counterparts (Holloway and Valentine 2001), a German teenager from the city of Hamburg regularly skyping with relatives living in Brazil (Gräbel et al. 2015), and young Australians "connect[ing] with the global community through chatlines on the World Wide Web or with American icons such as basketball heroes and McDonalds" (Malone and Hasluck 2002: 94). As a result, young people acquire stocks of spatial knowledge from and about spaces without ever needing to physically be there. The online practices of Portuguese youth epitomize the geographic expansion of their spatialities and thus their spatial knowledge: "The changing scope of space perimeter is the first dimension to consider. This outline was significantly enlarged: The Internet puts the child in contact with much larger and global domains, overcoming local physical settings and barriers" (Almeida et al. 2014: 1449).

However, young people's online practices may involve nearby spaces: for example, those contained within the circumambient spaces around their homes. In this regard, Portuguese young people get in touch with friends online even when they live close by (Almeida et al. 2014). Similarly, German youths (Seggern et al. 2009) turn to the Internet to be in contact with friends they already have and who, presumably, reside in their vicinity: "Furthermore, it is rarely used to make new friends. Instead, the Internet serves to extend or expand the opportunities to communicate with friends" (Seggern et al. 2009: 150). A locally focalized scope of online practices also became apparent in the use of online social networks by Peruvian adolescents in Lima (Arends and Hordijk 2016). While the spatial relations of their social networks expanded, they remained very much Lima based:

> [T]he online social networks of the youngsters […] are generally based around physical proximity and social similarities. Still, considering a decade

> ago, the social life of the […] youth took place in their neighborhood (Hordijk 2015), having social contacts living in another part of Lima is already a noteworthy development.
>
> (Arends and Hordijk 2016: 242)

Interestingly enough, for some of these Peruvian adolescents, virtual spaces also functioned as a substitute for spaces that they did not find in the circumambient spaces around their homes due to spatial conflicts with youth gangs and the appropriation of public spaces by neighbors. Furthermore, the online practices of some female adolescents on social networks illustrated how virtual spaces become spaces for them to experiment with their identities in a way that would not have been possible in physical public space. Hence, for these Peruvian adolescents, social networks became valued and suitable substitutes for local public spaces that were considered too dangerous for them: "'Before, when I did not connect to Facebook, I always went outside and talked to people. But since my parents do not let me go out anymore, now the communication is different.' 'Now Facebook means everything to me'" (Arends and Hordijk 2016: 239). Thus, the possibility of online practices broadening young people's spatialities does not necessarily diminish the relevance of local in favor of distant spaces. Rather, online practices and virtual space supplement, transform, and sometimes replace local space.

In other sampled studies, young people did not refer to remote or immediate physical spaces in their online practices, but rather to a multiplicity of spaces situated at varying distances somewhere in between. A good case in point is the aforementioned example of young Britons who not only chatted with US-American youths and were avid consumers of American pop culture, but also oriented their online practices toward locally based "place-routed cultures" (Holloway and Valentine 2001: 156). Specifically, this becomes apparent "in the activities of children who surf the Internet looking for their local football team, as well as American sport and pop stars," or, as one interviewee put it, "despite having a number of online friends based both in America and other countries, [she] still values the connections with those in her nation, as they understand the place-routed culture she wants to discuss" (Holloway and Valentine 2001: 158). Likewise, the use of virtual spaces by Portuguese young people demonstrates the diversified geographic scopes of spatial references and spatial relations in which they were involved when using the Internet (Almeida et al. 2014). These youths went online to "overcome the barriers of physical distance and to stay in touch with friends and relatives seldom seen in person" (Almeida et al. 2014: 1447). Moreover, the fact that some of the researched youths played online computer games with counterparts from around the world exemplifies "the wide and global horizon a virtual network can reach" (Almeida et al. 2014: 1447).

Overall, we can see that online practices enable young people to relate to multiple and heterogenous spaces as well as nearby and faraway spaces. The multiplicity of spatial references that arise as a result does not require the young people to be physically present in every single space. Interestingly, this does not necessarily result in the general expansion of young people's spatialities at the expense of

the relevance of local spaces, but rather local spatial references can also be found online. In our view, this has led to a staggering pluralization of young people's spatial references and, by extension, of their spatialities. Accordingly, the use of virtual spaces shifts the focus of the spatial arrangements in both local and distant spaces, while at the same time pluralizing and diversifying the spaces to which young people refer. Ultimately, since spaces young people have never physically visited become progressively relevant within their everyday lives and spatialities, young people begin to produce and acquire stocks of spatial knowledge founded on spaces they have never physically experienced first-hand (see Chapter 5).

Another key element is young people's adeptness at interacting with and using virtual spaces by means of technology. According to our findings, young people are increasingly embedded in multiple spaces at once and establish an assorted array of spatial relations. For example, Portuguese young people acquired the ability to multitask when surfing the Internet: "[U]sing the Internet is often done in parallel with other offline activities and children enjoy the experience of navigating simultaneously in different spaces, 'virtual' or 'real'" (Almeida et al. 2014: 1442). Moreover,

> [m]ultitasking also applies to cumulative online activities. Most children often have several webpages opened at the same time, they chat with their friends in instant messaging programs, while doing their homework or Web searches, often accompanied by background music from YouTube videos.
>
> (Almeida et al. 2014: 1443)

Similarly, thanks to their skillful use of smartphones and laptops, Israeli undergraduate students in Tel Aviv were able to perform several tasks at once, especially those related to communication: "multiple forms of exchange [are taking place] simultaneously (i.e. sitting with friends while talking on the phone and checking email)" (Hatuka and Toch 2016: 2204). By engaging simultaneously with virtual and physical-material spaces, both Israeli and Portuguese young people referred to different (either near or far away) virtual spaces in their interactions. We argue that this use of the Internet and mobile technologies is an indication that young people's spatial arrangements and relations are becoming increasingly *polycontextural*, seeing as their spatialities comprise a multiplicity of spaces and spatial relations, which in turn give way to new (and at times rather ephemeral) spatial arrangements (see Chapter 2).

In general, young people are now facing different requirements and logics prompted by the multiple spaces to which they relate simultaneously in their online and offline (spatial) practices. As we have pointed out and corroborated with reviewed studies, virtual spaces largely buttress young people's daily spatialities, albeit in somewhat unanticipated ways. It bears mentioning that young people may now engender new spatial relations and references by dint of virtual spaces without having to physically experience first-hand all of the spaces they incorporate into their spatialities. Consequently, young people's spatialities are remarkably plural and heterogenous now more than ever before as *mediatization* (the use of

the Internet and digital devices) and *translocalization* (above all, connecting with remote spaces) play an increasingly prominent role (see Chapter 2). In light of this development, in the next and final subsection, we explore the blurry divide between physical-material and virtual spaces.

Neither entirely tangible nor utterly insubstantial: The blurred boundaries between virtual and physical-material spaces

Following the first level of interpretation (see Chapter 3) of the sampled studies, virtual and physical-material spaces are mostly presented as separate, yet closely interacting, entities. While such a portrayal fulfills our analytical purposes, we sustain that young people barely, if at all, distinguish virtual spaces from physical-material spaces. To the contrary, young people interlink virtual and physical-material spaces in their everyday routines and spatial practices as they move fluidly from one side of the alleged divide to the other to pursue their interests and extend their practices. Next, we draw on examples from our findings to illustrate how the dynamic interrelationship between virtual and physical-material spaces impacts young people's spatialities.

The aforementioned claim that young people do not experience a clear-cut separation between virtual and physical-material spaces was derived from several studies in our sample: Holloway and Valentine (2001), Seggern et al. (2009); Almeida et al. (2014); and Hatuka and Toch (2016). For example:

> [Young Portuguese] combine and juxtapose the "real" and the "virtual" spheres, fabricating hybrid spaces for their own. One does not exclude the other. Through the use of the Internet, children import routines and schedules, activities and perceptions, people and networks from the "outside" world into virtual domains they have appropriated on the Web. By doing so, they monitor, diversify and multiply them.
>
> (Almeida et al. 2014: 1449)

Likewise, for young Germans in Hanover,

> [t]he Internet does not appear to provide young people with any new or different 'spaces' or 'worlds' (along the lines of a 'virtual 3D online world,' second life, second world); at any rate, this cannot be inferred from the empirical material available.
>
> (Seggern et al. 2009: 150)

As these two cases clearly demonstrate, young people do not experience virtual and physical-material spaces separately from one another (not to mention that they would most likely not refer to them as such), but rather constantly connect and bring them closer together.

Furthermore, we detected a steady trend among the researched young people of performing their tasks and pursuing their interests by flowing back and forth

fluidly and seamlessly between virtual and physical-material spaces (Holloway and Valentine 2001; Almeida et al. 2014; Million et al. 2019). Young Britons, for instance, turned to the Internet to extend their offline practices and interests regarding sports or popular culture. And, when they went online, they did not "enter a separate world, which is divorced from their off-line realities. Rather, they pursue off-line interests on-line" (Holloway and Valentine 2001: 156). Likewise, Portuguese young people accessed the Internet to get in touch with peers concerning a range of subjects such as "school and extra-curricular activities, their interests and their personal relationships" (Almeida et al 2014: 1446). Along the same lines, Austrian and German youths drew on virtual spaces to continue, acquire, and further develop offline practices: for example, through online tutorials (Million et al. 2019). As these studies indicate, young people are prompted to navigate virtual spaces (by searching the Internet and visiting websites) primarily based on their offline practices and interests, such as "sports they play – rugby, gymnastics, surf – [and] thus getting informed about news, athletes, best examples and references" (Almeida et al 2014: 1443). By the same token, staying in touch with friends and relatives surfaces as a recurring practice that young people not only carry out online, but also continue offline: "Internet-mediated social networks are closely intertwined with offline ones" (Almeida et al. 2014: 1449).

Another instance in which young people weave virtual and physical-material spaces together can be seen in the way young Peruvians living in Lima made use of social networks (Arends and Hordijk 2016). These adolescents frequently integrated physical-material spatial references (that is, actual geographic locations) into the virtual spaces of their social network to then modify their self-projected image. References to particular locations reflect the centrality of these locations in the identity of these young people: "Regarding more direct identity claims, what stands out is the frequent occurrence of territorial references in the photos the young people […] upload on their Facebook sites" (Arends and Hordijk 2016: 241).

All things considered, young people often intertwine virtual and physical-material spaces with one another with various aims—from enhancing the scope of their greatest personal interests to communicating with friends, relatives, and even strangers to infuse their virtual identities with physical-material content. Hence, virtual and physical-material spaces do not develop independently, but rather mutually shape one another within young people's daily spatialities. The line separating virtual spaces from physical-material spaces does not appear to be entirely tangible or utterly insubstantial in the eyes of young people. Indeed, from their standpoint:

> The distinctive line between 'virtual' and '[physical-material]' spaces is an artificial frontier, which mostly translates an adults' perception of the historical crossing of 'pre' towards a 'post' Internet era at home, typical of their generation. Applying this dichotomy to [young people]'s experience is inaccurate and fails to clarify one of the contemporary features of childhood:

> its intense, permanent and fluid forms of de-territorialized mobility between 'virtual' and '[physical-material]' spaces.
>
> (Almeida et al. 2014: 1450)

This deterritorialization perpetuated by young people as they move from physical-material to virtual spaces (and back) has taken the form of "hybrid spaces," which are "mobile spaces, created by the constant movement of users who carry portable devices continuously connected to the Internet and to other users" (de Souza e Silva 2006: 262). Accordingly, "the term hybrid defines a situation in which the borders between remote and contiguous contexts no longer can be clearly defined," and hybrid spaces "merge the physical and the digital in a social environment created by the mobility of users connected via mobile technology devices" (ibid.: 263). As such, we see hybrid spaces in our findings as a result of greater Internet use and widespread access to technological devices (notably, smartphones), gradually instilling plurality and heterogeneity into young people's spatialities. By and large, young people's production of their everyday spatialities, far from being linear, smooth, and transparent, has patently turned into a multifarious, multidirectional, multifactorial, and open-ended process. This partially accounts for the variability that permeates young people's spatialities, which we explore in the next section.

Incremental versatility: Interplays between multifaceted features of spatialities

Thus far, we have addressed each of the four main features of young people's spatialities separately, with only a handful of allusions here and there to how they intermingle. In this section, we delve into their juxtapositions, overlaps, and interconnections. We argue that the refiguration of spaces is manifested by the fact that young people's spatialities are increasingly being shaped, and thus constituted, by various features at once. Moreover, while we sustain that this phenomenon goes hand in hand with the pluralization and heterogenization of young people's spatialities, the four features we have identified as composing and shaping their spatialities remain prevalent and can be found in disparate socio-spatial realities. From the broad-based sample of studies in our meta-analysis, we draw on three exemplary cases from contrasting socioeconomic and geographic contexts in which young people have grown up to shed light on the interplay between the features in young people's spatialities and to underscore the multiplicity of these spatialities: Indonesian street boys (Beazley 2016), rural Bolivian young people (Punch 2000), and German youths (Seggern et al. 2009).

The case of young homeless boys in the Indonesian city of Yogyakarta in particular illustrates the interaction between an insular spatial structure and practices of being mobile, which proved to be key to their survival. As mentioned above, these young boys visit multiple dispersed spaces that offer them opportunities to fulfill their needs and desires. In our view, this constitutes an insular structuring

of their spatialities as they are shaped by a "multiplicity of spaces" that resembles "a network of entwined spaces for their everyday survival" (Beazley 2016: 188/187). Spatial practices of being mobile are another feature that strongly shapes their spatialities:

> Almost all the children depicted motion and mobility with cars, roads, trains, train tracks, traffic lights, buses and andong [a horse-drawn cart] featuring in their maps and drawings. This recurring feature reflects the fact that mobility was an integral feature of their lives.
>
> (Beazley 2016: 178)

Hence, the ability of these young street dwellers to be mobile not only connects their multiple spaces, but also serves as a coping strategy for their everyday survival; for example, they ride buses to beg, busk, or escape the city. As a result, these two features—their practices of being mobile and the insular structure of their multiple spaces—are closely intertwined. The resulting amalgam enables these boys to endure in their harsh world of homelessness because

> the street children were not tied to any one place and they have numerous 'symbolic cocoons' or urban niches which they used in the city in order to survive. […] It is the 'fluidity' of these spaces and the flexibility of the children to shift from one place to another at a moment's notice, which ensured their survival (Massey 1998; Pile 1997).
>
> (Beazley 2016: 187–88)

The interplay between multiple spaces with an insular structure and the young people's specific practices of being mobile gives way to flexible spatialities that allow street boys to adapt to ever-changing and unstable circumstances.

Similarly, young people in rural Bolivia have developed spatialities that encompass the features of the circumambient spaces around their homes, an insular spatial structure, and spatial practices of being mobile. For these youths, the circumambient spaces around their homes are a relevant part of their spatialities since they frequently use them and spend significant amounts of time there. Additionally, the circumambient spaces around their homes are supplemented by islands—spaces both inside and outside of their living environment in which they perform certain tasks: "Children indicate that they did not regularly use the whole space of their community. They tended to use the area surrounding where they lived and the centre of the community" (Punch 2000: 51–53). Accordingly, a high level of mobility was necessary to connect and traverse these spaces to fulfill their duties:

> Children used a wide range of spaces, often travelling great distances with animals or to carry out errands. Their mobility was closely linked to the demands of their household responsibilities and tasks. […] Therefore,

> children were usually more physically mobile and tended to travel greater distances each day than adults.
>
> (Punch 2000: 53)

In other words, these young Bolivians were well acquainted with the circumambient spaces around their homes and at the same time expanded, permeated, and connected them with their islands of duties and tasks by virtue of being mobile. We contend that such spatialities result from these young people being required to help their families and the location where they must carry out their required chores and run errands. It is notable that this interplay of features in young people's daily spatialities offers them a certain degree of autonomy, for they spent considerable amounts of time without any parental supervision as they have to move around in order to complete their tasks.

Unlike the previous cases, adolescents in Hanover (Seggern et al. 2009) produced a diverse range of spatialities that coexist within one (urban) space. The study presented five different types of adolescents in order to illustrate how specific features of their spatialities are attributed to varying degrees of relevance and can interconnect with and relate to each other differently. According to one established typology of adolescents, the circumambient spaces around the home were the dominant feature in their spatialities as their everyday spatial practices almost exclusively took place within their neighborhood. In the spatialities constituted by other typologized adolescents, the circumambient spaces around the home are expanded, supplemented, or even replaced by islands located both within and beyond them, which requires practices of being mobile to be developed in order to weave scattered islands together. The spatialities of yet another typology of adolescents encompass several dispersed islands between and through which these adolescents wander. Thus, their spatialities are founded on (and evoke) a fluid and diffused archipelagic structure, which are formed by spatial practices of being mobile that both comply with and deviate from a destination-oriented and traversing logic of mobility. Finally, since many of the investigated and categorized adolescents were avid users and consumers of the Internet, virtual spaces, such as those based on online communication with peers and friends, enhanced and overlaid the other three features, which in turn created an opportunity for alternative and novel spatial arrangements to underpin young people's spatialities.

As these exemplary cases reveal, young people's spatialities and their everyday lives are shaped in part by specific interplays between the four main driving features. We argue that such interactions result from, and therefore define, the specificity of young people's everyday lives growing up under different social, economic, cultural, political and, sure enough, spatial circumstances. In other words, instead of a single dominant feature, we sustain that different features increasingly converge and intertwine within young people's spatialities and thus co-constitute new spatialities. All in all, and against the background of the refiguration of spaces, we also discern a growing pluralization and heterogenization of young people's spatialities prompted by more intense interactions among their four main underlying features, especially since the advent of virtual spaces.

No longer (solely) physical-material, but virtual and fluid: The refiguration of young people's spatialities

Throughout this chapter, we have traced and examined the changes and developments of young people's spatialities—including any relevant spaces, spatial references, spatial relations, and the spatial arrangements—based on the findings of our qualitative meta-analysis. Our objective was to shed light on the question of how young people's spatial knowledge has evolved from the 1970s onward (though we dared to go back as early as the 1930s). Due to the processual nature of the refiguration of spaces, we consider young people's spatialities to be increasingly shaped and constituted by various features, which can come into effect simultaneously and interact with one another. Furthermore, we have observed that one characteristic of the refiguration of young people's spatialities is that they are gradually being underpinned by various interacting features at once and thus impacted by an accentuated (now digitalized) insularity, pluralization, and heterogenization instead of assuming one dominant, concentric, and mono-compartmentalized form (see Figure 4.2).

In the collection of sampled studies, we identified and described four significant features of young people's spatialities. First, circumambient spaces around the home are a continuous feature in many young people's spatialities, although they are not always ubiquitous. Indeed, circumambient spaces around the home seem to have lost their prevalence and dominance—without necessarily becoming extraneous—and have been supplemented, expanded, and sometimes even replaced by other features. Second, an insular spatial structure has progressively gained relevance within the production of young people's spatialities, especially in the wake of the refiguration of spaces. Third, practices of being mobile buttress the constitution of young people's spatialities as they enable young people to explore single islands within their spatialities and to link scattered spaces and produce a fluid and diffused archipelagic structure by freely roaming the spatial interstices between their islands. Finally, virtual spaces have positioned themselves as the most novel feature within young people's spatialities with the advent of rapid digitalization processes. Consequently, virtual spaces have given way to new spatialities as they become integral to many—though not all—young people's everyday lives.

With regard to the changes in young people's spatialities in relation to these four features, both continuities (such as young people's spatialities still being shaped by circumambient spaces around the home) and discontinuities (for example, the growing relevance of insularly structured spatialities or the newly emerging spatial arrangements resulting from the proliferation of virtual spaces) are perceptible. Seen through the lens of the refiguration of spaces, these developments are indicative of how geographic contextual singularities in which young people grow up contribute to the production of their spatialities. This in turn largely determines whether a particular feature prevails, as well as the nature (be it intersecting, overlaying, replacing) of the interactions between features. Thus, we believe the refiguration of spaces serves to pluralize and diversify young people's spatialities by constantly varying their spatial arrangements, spaces, and spatial references.

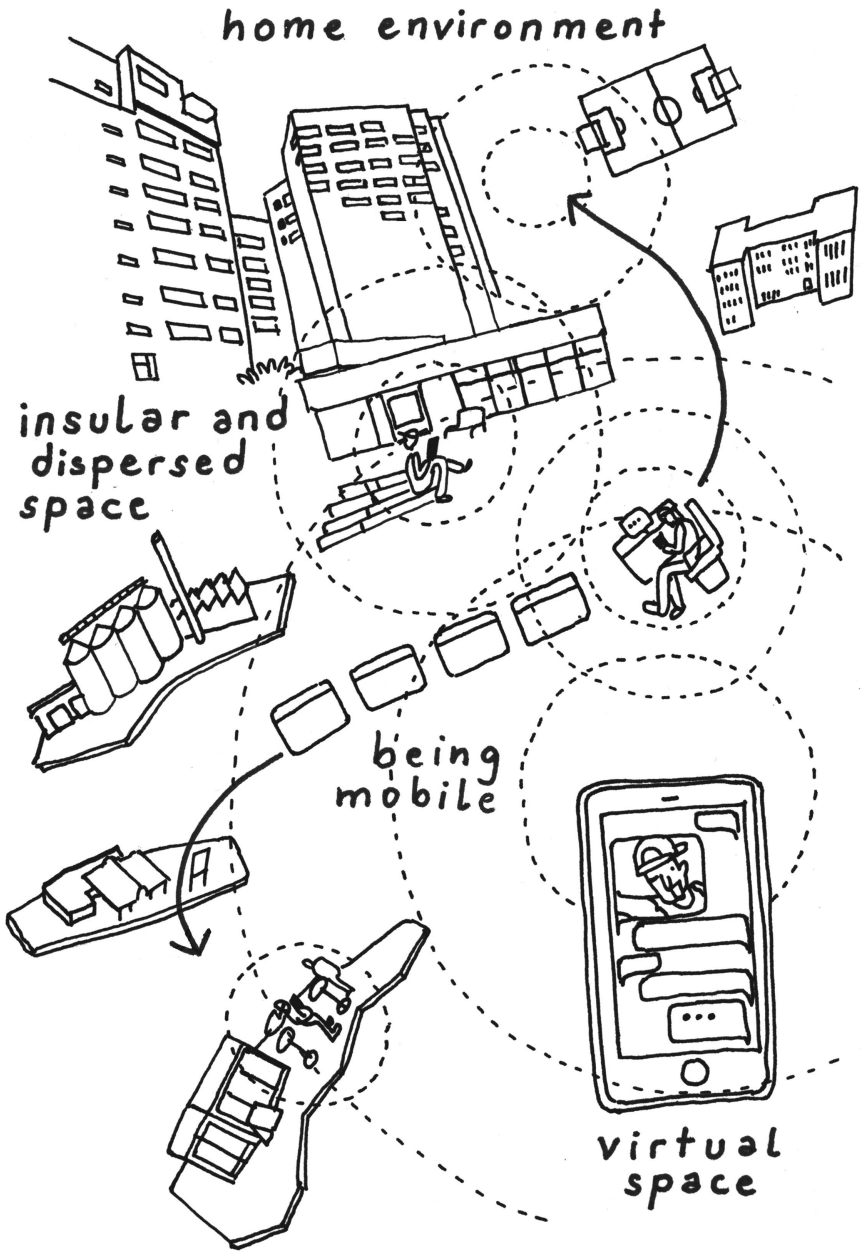

Figure 4.2 Simultaneity, overlapping, and intersection of different spatial structures leading to a pluralization and heterogenization of young people's spatialities. Graphic: Grit Koalick, visuranto.de, based on own elaboration.

Moreover, driven by the upsurge in virtual spaces, young people's spatialities are noticeably becoming polycontextural and translocal (see Chapter 2) as young people progressively relate (virtually and simultaneously) to different spaces in addition to linking and associating multiple (both close and distant) spaces by means of their (digital) spatial practices. Since we consider the integration of virtual spaces in young people's spatialities to be a profound shift, the process of digitalization must undeniably be seen as a key driver behind the developments in young people's spatialities. Presumably, this process may be further reinforced by not only wider access to the Internet, but also the spread of mobile devices, which makes it essential.

In terms of future research, instead of pursuing the traversing and overarching meta-level of analysis, we have set out to examine the interactions between the four fundamental features. Socio-spatial specificities, the consequences and opportunities arising from particular spatialities, and the factors leading to the production of new alternative spatialities would all merit closer consideration. In order to explore the diagnosed pluralization and heterogenization of young people's spatialities in the refiguration of spaces, concrete spatialities and the interplays between their features could be systematized and, consequently, relevant features could be identified in young people's spatialities.

Finally, all of the changes and developments in young people's spatialities that have been described also testify to the evolution of their spatial knowledge. A mounting complexity is infused in the spatial knowledge of young people because they, on the one hand, are becoming more and more capable of linking and organizing spaces on a polycontextural and translocal basis and, on the other hand, find themselves immersed in polycontextural and translocal spatial arrangements (see Chapter 2). Thus, young people acquire spatial knowledge from, about, and by interacting with various (either nearby or remote) spaces and their concomitant physical-material arrangements. As such, the spatial knowledge of young people is increasingly influenced and characterized by the experience of translocal and polycontextural spatial arrangements, the pluralization of (potential) spatial references, and new simultaneous experiences of proximate and faraway spaces. This undoubtedly impacts young people's spatial practices, spatial experiences, and even spatial (il)literacy as their spatial knowledge is not only influenced by the spatialities, but also involves the various ways in which young people experience and competently (re)construct their spatialities.

In the following chapters, we complement the development of young people's spatialities in the refiguration of spaces with discussions regarding other synthetized findings from our qualitative meta-analysis. We take a look at the role of young people's *spatial perception* (see Chapter 5), examine the "anatomy" of produced and acquired stocks of spatial knowledge with a focus on relevant *learning arenas* and *agencies* (see Chapter 6), and explore the *social control* and *spatial pedagogization* young people have been progressively undergoing (see Chapter 7).

5 Spatial perception

Assessments of today and what a spatial future might look like

Spatial knowledge and environmental-material affordances: A springboard into young people's spatial perception

In this chapter, we use a twofold conceptional framework to discuss the notion of *spatial perception* as one of the dimensions through which we have analyzed the evolution of young people's *spatial knowledge*. On the one hand, we focus on the "perceptual" facet of spatial knowledge, which represents how space is perceived, imagined, and remembered. As such, it comprises "the subjective or individual experiences and perceptions of space" as well as the "imaginations, emotions and affective reactions related to" it (Löw and Knoblauch 2019: 11). We therefore deem young people's spatial perceptions an integral part of their spatial knowledge. On the other hand, we draw on "the theory of affordances" (Gibson 1977), which refers to the "different kinds of opportunities [spaces offer and facilitate]. [Hence,] [d]ifferent places will have different levels of functional significance for the [young person] […], who in turn assesses the *affordances* of places through the stimulus information which they impart" (Matthews 1992: 200; italics in the original). This refers to the functional opportunities the (natural/built) environment presents to young people by means of its material and constitutive elements and how young people either adapt to or modify them.

Against this background, we can show that young people's spatial knowledge is shaped in two ways. On the one hand, direct *embodied-experienced* (inter)actions with or in spaces continue to be relevant for young people's spatial perception. On the other hand, spatial knowledge is increasingly shaped by *mediated* spatial knowledge, which is not based on physical experiences, but rather is acquired via old and new media devices. This in turn results in a clear pluralization of spatial references (which can also be fueled by increased mobility, living in changing environments, and/or growing up translocally). It leads to the *refiguration* of young people's perceptions and assessments of spaces, which we see as a qualitative characteristic of the refiguration of spaces.

With the aim of supporting this argument, the chapter is structured as follows: In the first part, we explore young people's spatial perception quite broadly to identify spaces of importance and sets of criteria used by young people to assess spaces. Here, we show that the criteria have not changed much, but the assessments

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themselves can vary and shift from somewhat positive to somewhat negative. To conclude the first section, we demonstrate that spatial knowledge is produced by a wide array of (daily) events, such as meeting and interacting with peers in person, facing annoying traffic, or witnessing people fighting. Therefore, young people accentuate certain environmental characteristics and affordances of spaces (e.g., emissions, crowdedness, leisure opportunities, apt circumstances to socialize, indoor-outdoor atmospheres, and freedom to walk around). Accordingly, the freedom to perform specific activities (notably, meeting friends) in certain spaces (such as shopping malls, playgrounds, or even schools) plays a big role in the way young people perceive spaces and their affordances. There are also clearly discernible gendered patterns regarding the perception of neighborhood spaces and marked differences between urban and rural settings with respect to young people's autonomy. We also show that there is a fine line between when, where, how, and what degree of adult supervision and control are wanted (or tolerated) by young people, for adults can provide a feeling of security and well-being (see Chapter 7).

Building upon this, we conclude in the second part of the chapter that young people's spatial perceptions are still largely, though not exclusively, influenced by and thus closely connected to embodied-experienced spatial knowledge. This is especially evident when tracing young people's perception of spatial transformation (e.g., urbanization, urban regeneration, and increased motorized traffic) in comparing *before-and-after* developments. Moreover, embodied spatial experiences and their perception seem to be sharpened and triggered by comparisons of the here and there, when young people experience diverse geographic contexts or *urban*, *suburban*, and *rural settings* translocally. With regard to the increasing *translocalization* of childhood and youth, we can clearly see the rising influence of mediated spatial knowledge for young people throughout the past 50 years. It shifts young people's perceptions and assessments of spaces because they gain mediated knowledge by means of *old* and *new media*. The downside of this is that it also mediates fear and can spread spatial discomfort. The final aspect of the second part addresses the future aspirations of young people and their ideas about improvements and demands for future neighborhoods, settlements, and cities. Our intention is to highlight young people's *prospective spatial knowledge* and show how the *embodied-experienced* and *mediated* spatial knowledge greatly influence how young people perceive space and imagine their potential future *spatialities*.

A motley collection of perceptions: How young people perceive "their" spaces

It goes without saying that it is not possible to predict spatial aversions in advance. A space considered to be a favorite by one child may well be appraised as subpar by others. Perceptions also can shift and can be both messy and fluid, for they are subjective and individual. While this two-sided view is, in effect, overarching, it also constitutes an apt point of departure for deconstructing the spatial perception of young people since it recurrently appears in many of the meta-analyzed studies. We therefore endeavor to follow this approach to make the most of the

rich meta-analyzed material and determine how stable the positive and negative perceptions of spaces have been from the 1970s onward. Accordingly, we developed several guiding questions (for instance, which characteristics are attributed to positively/negatively perceived spaces? What variations are to be found?, etc.). Although there is not a striking difference between positive and negative spatial perceptions, we did spot tendencies in one direction or the other. Hence, we defined a scale of spaces perceived as "relatively positive" to "relatively negative" as a means of sorting our meta-findings. We also highlight examples of where this nuanced distinction was not particularly apparent.

As for the main affordances sought by young people, those providing opportunities to meet peers and the freedom to partake in somewhat self-determined activities appear frequently. Accordingly, we have identified two main types of somewhat positively perceived spaces: outdoor spaces and spaces of consumption. Outdoor spaces are those where young people have direct contact with nature: from developed open spaces (such as parks and playgrounds) to rather undeveloped and leftover green spaces (such as wooded areas and abandoned sites taken over by greenery). Other spaces that young people perceive as relatively positive are the family home and school, although they also seem to have mixed feelings about these spaces, which are very much present in their daily lives and play a prominent role in how they produce and obtain stocks of spatial knowledge (see Chapter 6). Moreover, spaces perceived as positive, and thus denoted as favorites, are closely associated with the availability of affordances that allow for spatial (practices of) appropriation.

When describing spaces they consider rather unpleasant and the discontent they feel, young people take both social and physical conditions into account. Thus, rather than focusing on certain types of spaces, their negative spatial perception is founded on the causes and factors undermining their attractiveness, for they prevent affordances from surfacing. Aspects that contribute to a negative perception of space include: emissions (here the influence of (heavy) traffic stands out), poor maintenance and infrastructure, social confrontations (for example, with adults and strangers), and unsafe circumstances (notably, the recurrent sentiment of insecurity associated with nighttime). All of these factors influence whether a space is—or could possibly be—used at all.

Must-haves versus nice-to-haves: Freedom and meeting peers

According to our meta-analyzed sample, possibilities for meeting peers and the amount of leeway for preferred activities account for much of the positive appraisal young people give to spaces (Hayward et al. 1974; Berg and Medrich 1980; Malone 2013; Ortiz et al. 2014; Carroll et al. 2015; Gülgönen and Corona 2015; Sander 2016). Opportunities to meet and interact autonomously (such as playing, practicing sports, talking, or simply goofing around) are what matter the most to young people. Furthermore, young people are careful observers of their (natural/built) environments and clearly recognize the extent to which a space, given the arrangement of its constitutive elements, either hinders or promotes their favored practices. Back in the 1970s, for example, after being exposed to

traditional playgrounds with prebuilt equipment and adventure playgrounds, US children were largely drawn to the latter. Interestingly enough, this impression was not necessarily connected to the playground equipment itself. Ultimately, the children were actually attracted to the openness and the notion that "the setting allowed the freedom to do what you want" (Hayward et al. 1974: 155) (see also Chapter 7). However, the equipment in and of itself is not always disregarded. In contrast, children living in a contemporary urban high-rise community in Bukit Cempaka, Malaysia, were able to see "hidden" affordances in their housing complex playground despite its derelict condition. They played with the broken swings or climbed and stood on top of the perilous play tunnel. In other words, they came up with their own activities and, in so doing, made the most of the material they had at hand. Moreover, far from a minor anecdotal tale, these Malaysian children illustrate how, even within "constraints and limitations, the[ir] […] practices of reimagining, inventing and reconstructing a space in multiple ways reflects their agency in shaping their own play experiences" (Agha et al. 2019: 698).

Young people, as indicated by the case of Malaysian children, are well aware of their spatial and temporal constrains in terms of moving freely and roaming around. US-American children who grew up in Oakland during the 1970s enjoyed the possibility—and even the privilege—of simply stepping out their front doors, exploring their surroundings, and potentially finding playmates (Berg and Medrich 1980). In contrast, urban children in the 1980s Berlin (Zeiher and Zeiher 1994) and 2010s Mexico City (Gülgönen and Corona 2015) had to rely on their parents to be taken somewhere to play outdoors or to organize playdates. Furthermore, young people also notice limitations at a micro level in the form of material changes that hinder their freedom. For example, Polish youths in a neighborhood of Warsaw "were irritated by the poles installed […] to prevent parking on sidewalks, or the fences that had been put up to prevent walking on the grass, because they saw these as restrictions of freedom" (Zylicz 2002: 212).

Another pivotal factor, which largely determines how restrictive or free young people perceive spaces to be, is access to Internet and digital devices. With the widespread increase of media and technological developments in the second decade of the 21st century, we found that young people, whose socioeconomic position allowed it, have gained additional—and partly self-determined—spaces and times in which they can arrange to meet friends in person or online across the Global South (Arends and Hordijk 2016; Saif 2019) and Global North (Almeida et al. 2014; Ortiz et al. 2014; Hatuka and Toch 2016). As part of this trend, we see young people shifting their spatial practices, particularly girls, for they are generally subject to more mobility restrictions and are therefore homebound (see Chapter 7). More specifically, *virtual spaces* represent an escape route for girls as they find substitutes for being outside and meeting people in physical spaces, all the while complying with the (parental) mandate to stay at home. As a seventeen-year-old Peruvian girl from a Lima neighborhood commented:

> 'in this [offline] life I get bored.' She explains further: 'Before, when I did not connect to Facebook, I always went outside and talked to people. But

> since my parents do not let me go out anymore, now the communication is different. Now Facebook means everything to me.'
>
> (Arends and Hordijk 2016: 238)

Similarly, young Indian girls in Kochi, Kerala, turned to online activities not only to communicate with close friends, but also to make new friends. When it came to meeting them for the first time in person, commercial spaces were usually chosen due to the sense of security they project (Saif 2019). Consequently, an increased use of Internet and technology is gradually emerging within the socialization (spatial) practices of young people as virtual spaces can either serve as or facilitate domains for meeting and interaction.

With regard to adult supervision and control (see also Chapters 6 and 7), we found that there is a fine line between how much freedom young people want and how much supervision and control is accepted to simply feel safe or to reach safe spaces. A case in point is that of children from the small Australian town of Dapto, whose ideas and recommendations for the development of a new neighborhood revealed that envisioned spatial affordances entailing preventive protective measures and surveillance were most welcome. Specifically, children expressed their desire "[t]o limit the possibility of stranger danger incidents; having a street front at least on one side of the pathway ensured natural surveillance by the homeowners and possible safety houses" as well as "[t]o have the wooded spaces close by for dipping into for optional activities to ensure that there were some opportunities for creativity with manageable risk elements that help to support a sense of adventure" (Malone 2013: 389).

Moreover, our sample illustrated that crowdedness—that is, the extent to which spaces are occupied—is a recurring criterion young people employed to judge spaces in a positive manner across rural (Punch 2000; Cummins 2009), urban (Van Staden 1984; Hitzler 1995), and suburban (Berg and Medrich 1980; van Vliet 1981; Malone and Hasluck 2002) settings in the meta-analyzed cases. Young people in general favored neighborhoods and spaces with high numbers of their peers and where they can hang out and interact. Even in the unorthodox case of homeless Indonesian boys living on the streets of Yogyakarta (Beazley 2016), the presence of other people (whom to beg for money) or coequals were factors that they considered positive in their perception of space. In addition, for Ugandan (van Blerk 2006) and Indonesian (Beazley 2016) homeless young people alike, solidarity with their peers constituted an integral part of their spatial survival strategy. However, young people do not always view packed spaces as positive. As a matter of fact, the idea of encountering other people was perceived negatively by US-American children living in a New York neighborhood in the early 1980s, who reported that they experienced frustration in crowded conditions and dealt with it by "get[ting] out of [the crowded situation]" because direct contact and interaction with crowdedness led to "palliative reactions, whereby the children attempted to minimize external input" (Van Staden 1984: 107). The study points out that both communication and the presence of friends or family members could reduce such palliative reactions.

Unchanged important: (Un)developed outdoor spaces

Young people are fond of outdoor spaces that provide them with a wide array of opportunities to play and socialize. As previously mentioned, developed (parks, playgrounds, etc.) and undeveloped outdoor green spaces (woods, abandoned sites, etc.) have continued to be popular among young people in urban (Hayward et al. 1974; Berg and Medrich 1980; Hart 1981; Malone 2013) and rural (Punch 2000; Cummins 2009) scenarios alike since the 1970s—although we identified nuanced variations across different world regions.

First, well-managed green spaces such as parks are of great importance to youths throughout the Global North in that they allow them to meet their peers with fewer restrictions in, for example, Germany (Seggern et al. 2009), Russia (Ziemer 2011), Spain (Ortiz et al. 2014; Díaz-Rodríguez et al. 2015), and Poland (Zylicz 2002). For Spanish young people living in Santa Cruz de Tenerife in particular, "traditional public spaces" (plazas, parks) have remained popular. Here, they simply "meet and chat" even while mediatization (video games, movies, and technological gadgets) has increasingly gained traction among them (Díaz-Rodríguez et al. 2015). This suggests that new and old spatial practices are not necessarily mutually exclusive, but rather can coexist. Other empirical cases show how ethnicity and gender play a role in the way young people perceive and use parks, at times by colliding with one another and thus causing tension and conflicts. They are sometimes regarded as an inclusive space. For example, young Armenians whose families migrated to Krasnodar, Russia, visited parks in their leisure time (hanging out, chatting, and listening to music) to circumvent parental restrictions preventing them from participating in mixed company (which is especially relevant to young girls). At other times, several parks were also known to be territories controlled by particular ethnic groups of teenagers who kept others interested in gathering there at bay (Ziemer 2011). Similar to the experiences of these young Armenian girls during the 2010s, young Varsovians in the late 1980s and early 1990s had mixed feelings about their neighborhood park, which was considered a stigmatizing space due to their presence there. As one girl described:

> I would like to build a youth club in Powisle. Right now, the only place where we can meet is the park. And then when we meet in the park, teachers and some parents accuse us (they must be bored) of doing some dirty stuff there. They imagine that everybody is drinking there or getting into fights. And such things never happen… If somebody goes to the park, then people think he is a hooligan. And where else can we meet? At our friend's place, where there is not enough space?… This is why I would like to build a club (Agnieszka, 15 years old).
>
> (Zylicz 2002: 213–14)

This statement illustrates how young people are aware of the unjustified prejudices triggered by their behavior in and uses of outdoor spaces, which in turn can result in overt spatial exclusion (as was the case with the criticism directed toward the

young Varsovian). Given the lack of suitable meeting spaces, young people tend to praise and advocate more (youth) dedicated spaces as a means to offset their spatial displacement. An example of such dedicated spaces is ethnocultural centers, which were favored by the Armenian girls (Ziemer 2011).

By and large, outdoor play facilities are also a determinant of the significance young people attach to parks. Both Australian children in the small town of Dapto (Malone 2013) and children in Mexico City (Gülgönen and Corona 2015) greatly appreciated the variety of play settings for activities (playing with friends and practicing sports) available in the parks they regularly visited. Moreover, Mexican children were drawn in particular to larger parks, as they offered other enticing activities, such as "feeding the squirrels and riding a skateboard" (Gülgönen and Corona 2015: 218). Although these types of parks would appear to be "young people's domain" par excellence in the city, their experiences and perceptions could be tainted by animosity and direct marginalization. Indeed, young people have been confronted with diverse limitations when visiting parks, and their perception of them as appealing and secure spaces has fluctuated since the 1960s throughout both the Global South (Ahmed and Sohail 2008; Gülgönen and Corona 2015) and North (Pfeil 1965; Zeiher and Zeiher 1994; Buss 1995; Carroll et al. 2015). For instance, German children in large cities were (and likely still are) able to visit parks, provided their parents accompanied them (Pfeil 1965). Furthermore, the parks' affordances prevented children in Berlin from enjoying them fully due to the rules and regulations that prohibited children from riding a bicycle, among other things (Zeiher and Zeiher 1994). Elsewhere, we have traced circumstantial variations in young people's perception of parks directly related to purposes framing the visits. Children in Mexico City mostly went to parks together with their whole family. Socializing with peers was very much limited since the visit was then regarded as family time (Gülgönen and Corona 2015). In a nuanced manner, children in La Paz, Bolivia stressed that the idea of going to a park did not appeal to them when it was very busy and they therefore had to compete with other users (in particular, older children) (Serrano 2015).

Perceptions of parks are closely related to the issue of safety, which can entail different situations and factors. For children growing up in Berlin during the 1980s, parks were both an insecure and forbidden space because their "parents and teachers warned them about […] crime in the park" and prohibited them from visiting them (Zeiher and Zeiher 1994: 96; own translation). Likewise, in the 1990s young Mexican and Cambodian immigrants living in a housing complex in Oakland (Salvadori 2002), as well as children from various neighborhoods in Los Angeles (Buss 1995), did not think of parks, playgrounds, and other outdoor public spaces nearby in a positive light either, for they associated them with criminal activity. Similar to the case of children in Berlin, parental narratives were filled with admonitions and played a major role in their perception of outdoor spaces as unsafe, particularly for the young Mexican and Cambodian immigrants. These young people were told about assorted (potential) dangers "out there"—such as getting mugged, beaten, lost, or even abducted and murdered. As one interviewee put it, "'Parents are scared I might get kidnapped, or get lost, or somebody with a gun could kill me' (Jennifer,

9 years oId)" (Salvadori 2002: 193). As a result, these young people developed a psychological perception of their surroundings that caused their everyday lives to be oriented indoors because their feelings of insecurity were largely based on a "fear of the unknown" provoked by their "scarce knowledge of the outside and their limited mobility in the urban environment" (Salvadori 2002: 193).

Echoing the issue of security, but seen from a different angle, young New Zealanders from suburban and inner-city neighborhoods in Auckland explicitly stated that outdoor play spaces—including parks and playgrounds—needed to meet higher safety standards in order to be considered appropriate. Specifically, the children asked for

> less and slower traffic (…) and more pedestrian crossings; more easily accessible outdoor places in which to play (parks, a skate park, playgrounds, better playground equipment); more space in and around apartments in which to play; (…) shared leisure facilities.
>
> (Carroll et al. 2015: 14)

Far from "wild imaginations" of insecurity and fueled by parental accounts on criminality in parks, this study shows that safety aspects connected to both the design and maintenance of outdoor play spaces are sharply criticized by young people, which in turn determines the extent to which their perception of such spaces is either positive (safe) or negative (unsafe). However, when it comes to playgrounds specifically, young people's perceptions differ.

Australian children in Dapto disapproved of standardized playground schemes that are the "typical 'KFC' (kit, fence, carpet) playground designs and the narrow potential for exploratory play" (Malone 2013: 388). For children in Mexico City, slides, swings, seesaws, and tunnels were all crucial elements for a playground (Gülgönen and Corona 2015). In contrast, children growing up in the slums and middle-income neighborhoods of Dhaka, Bangladesh, had very basic demands for the playground design: they fundamentally wanted to have a better rubbish collection, drinking water, toilet facilities, and more security (Ahmed and Sohail 2008). As plain as these children's requests were, it should be noted that they are also gendered. The study indicates that girls and young women (the study looked at young people aged 5–18) hardly ever used parks or playgrounds due to not only their lack of leisure time (they were required to do household chores and take care of siblings) but also social/cultural restrictions (fear for their chastity and reputation) (Ahmed and Sohail 2008). Be it because of physical-material conditions or age- and/or gender-related conflicts, we see that young people perceive the use of their preferred parks and playgrounds as markedly restricted—that is to say, with few opportunities to explore, discover, and experience space on their own (see Chapter 7). Because the possibilities for socialization and autonomous use of outdoor spaces are remarkably limited, young people seek out other spaces in the hopes of finding affordances that allow them to overcome the negative aspects of developed play spaces. For instance, in the late 1970s, children from the Glenn neighborhood in Oakland preferred to play at home, somewhere else outside of

the neighborhood, or in "parking lots and other non-play-oriented public space[s]" because of "the unaesthetic schoolyard and the less-than-welcoming character of the park," as well as competition with teenagers (Berg and Medrich 1980: 333). Other practices and coping strategies and tactics used by young people to expand and diversify their activity spaces in response to spaces that do not (fully) meet their needs are discussed more extensively in Chapter 7.

In contrast to the aforementioned factors that contribute to young people's spatial perception of outdoor developed spaces as negative, several studies in our sample highlight the importance of natural elements for spaces to be perceived as positive (Berg and Medrich 1980; Punch 2000; Bannerjee and Driskell 2002; Cummins 2009; Malone 2013). In fact, young people may even confer the status of "favorite hideaway" to a space based solely on the presence of natural elements. For example, the Dapto neighborhood in Australia, which is located close to the coastal line, is infused with nature, which the children perceived as deeply intertwined with the way they experienced their immediate surroundings. A drawing of the neighborhood by one boy illustrates "how natural elements of the environment, rocks, bushes, trees and the pathways to get to them are central and interwoven to his experience and perception of the neighborhood" (Malone 2013: 383). Furthermore, among the children from the study, being outside in nature was a much more common spatial practice for older boys, who pursued specific interests: "[f]ishing, catching frogs, going for walks, riding bikes and just generally hanging around the creeks and woodlands" (Malone 2013: 382). More specifically, one interviewee described what was so thrilling about his play space in the countryside near a farmhouse: "This is a place for engaging in rough and tumble play and building because there is an abundance of loose materials for cubby building" (Malone 2013: 838).

Similarly, rural children growing up in Southwestern Ontario, Canada, at the turn of the 21st century referred to their "favorite places and spaces on the farm as being the outdoors, as closely linked to nature" (Cummins 2009: 76). These children cherished being out in the open, for they could wander the fields and forests with their friends, swim in ponds and streams, or play with their pets. Interestingly, these children were still conscious of their responsibilities and thus able to perceive and separate their spatial practices of duty—such as helping out around the farm—from those of play. Children growing up in rural Churquiales, Bolivia, during the 1990s had to surmount the hurdle of balancing times and spaces of duty and play. Rather than driving a wedge between instances of duty and play, these children blended them together:

> Certain jobs in Churquiales could easily be combined with play, such as looking after animals. Most of the children described this as a potentially boring task, as they just had to accompany the animals out to pasture to make sure they did not wander, enter fields, and destroy crops, or get lost. Consequently, the children—both boys and girls—often sang loudly while taking the animals out or rounding them up, as they found themselves in wide open spaces on their own. Sometimes they took something with them to occupy themselves, such as a doll or a truck to play with. Other jobs could also easily

> be integrated with play. Fetching water could include playing for a while in the river, and banging home-made drums to scare birds away from crops was more like having fun making music rather than a chore.
>
> (Punch 2000: 57–58)

Here we see the cleverness of young people in reading their (natural/built) environments, spotting affordances, and seizing opportunities to play within specific slivers of time amid their spatial practices of duty—which also extends to their spatial practices of learning (see Chapter 6).

As mentioned before, young people may sometimes regard a space as their hideaway because of its natural features. Some of the studies we have meta-analyzed show that nature also attracts young people since it allows them to escape (parental) supervision. In the case of rural Canadian children, for instance, chances to elude their parents' control were slim since working and living spaces on farms were close together and even intertwined. To cope with and overcome such a reduced latitude to roam freely, these children "fled" to nearby fields and ventured into bushes and forests to play (or simply do nothing) away from the gaze of their parents (Cummins 2009). Similarly, though in an urban setting, young people from the self-built settlement of Sathyanagar on the outskirts of Bangalore, India, spoke fondly of hideouts they had in the vicinity where they could be on their own:

> [O]ne of these spaces was a secluded strip of land between the abandoned railroad tracks and the adjacent industrial area […] a magical world quite removed from the noise and activity of the nearby developed areas as well as the interfering eyes of adults. With a quiet glade of trees, a small meadow and meandering channel of water, it was a small paradise in which Sathyanagar's young people had uncommon access to nature.
>
> (Bannerjee and Driskell 2002: 146)

Be it in a rural (where one would assume the availability of nature is somewhat taken for granted and thus not appreciated much) or an urban setting, we see how young people are drawn to secluded, undeveloped green spaces and claim them for their self-defined and preferred spatial practices and times. Moreover, this illustrates young people's *spatial discernment-signification* (see Chapter 6), given the way they detect and value specific traits and qualities of natural elements (bushes, trees, and meadows) in specific spaces and refer to them accordingly as their hideaways. Furthermore, this spatial discernment-signification of undeveloped, open green spaces covers a wide range: from forests, fields, riverbanks, and brownfields to specific spaces with natural elements such as bushes and trees. As a matter of fact, our findings show that trees play a central role in the positive spatial perception of young people researched during the 2000s and across diverse socioeconomic and geographic contexts: rural farms in Southwestern Ontario, Canada (Cummins 2009); a squatter camp in Johannesburg, South Africa (Swart-Kruger 2002); an urban neighborhood in Warsaw, Poland (Zylicz 2002); and a housing project in Oakland, United States (Salvadori 2002). In addition, all of these studies

indicate that young people have strikingly limited access to (un)developed green spaces (though, in the case of rural Canadian children who grew up on farms, one may argue that such spaces were readily at their disposal).

The positive spatial perception of young Mexican and Cambodian immigrants living in the Oak Park housing complex revolved primarily around a handful of trees. Unsurprisingly, this resulted from the markedly scarce (direct) exposure the young people participating in the study had with nature, their significantly restricted mobility, and the urban character of the housing project location. Thus, young residents of the housing project used "the trees for climbing or to play with their roots and surrounding dirt" (Salvadori 2002: 192). Interestingly, the vital role trees played within children's spatial perception was also underscored by the negative perception of the only other natural element drawn and mentioned during interviews:

> the creek running by the school […] a forbidden place […] defined as 'the river where many people died.' 'The creek close to school—the principal said that many people died there. It is dangerous because it is slippery and you can fall,' explained 11 year old Sunlarry.
>
> (Salvadori 2002: 191)

Likewise, young people growing up under severe circumstances in the South African squatter camp of Canaansland shared a similar perception and appreciation. Because girls spend more time close to their homes than boys, they combined their spatial practices with the scarce natural elements available:

> [They prize] features of the natural environment, such as the trees on the eastern side of the camp, where they sat in the shade to think and rest, or to play with pets or chat with friends. Even the small veld flowers, which sometimes bloomed on the vacant plots across the road that was used for garbage and sanitation, are noticed and appreciated.
>
> (Swart-Kruger 2002: 119–120)

The telling ability to focus on the positive (blooming flowers) rather than the negative (waste and sanitation) natural features within their immediate physical surroundings is remarkable and denotes a gendered need to maximize the few environmental resources at hand. Oddly enough, one particular natural element amidst a relatively high quantity (and alleged availability) of (un)developed green spaces can hold great personal significance for young people. For instance, for one Polish young girl in the urban neighborhood of Powisle in Warsaw, the tree in the park was "the only tree [she] ever climbed in [her] life" (Zylicz 2002: 208), and for rural Canadian children in Southwestern Ontario, trees were

> places where the[y] […] can exert control over their environment. That is, it would be unlikely to find adults sitting in trees on the farm. In this way, these children have a place separate from the adult world and a place of their own.
>
> (Cummins 2009: 78)

Once again, the importance of having a space to (temporarily) escape from parental control and supervision, as illustrated in the second example, comes prominently to the fore (see Chapter 7 for more details).

Spaces of consumption: Supervision and turning liberty and fun into one and the same

Throughout our sample of meta-analyzed studies, young people repeatedly refer to and describe spaces of consumption as their favorite, explaining that they offer appropriate affordances to meet with peers—this is especially true for adolescents. Specific examples include: convenience stores, internet cafés, arcades and video halls, and video game shops (Muchow and Muchow 2012 [1935]; van Blerk 2006; Ahmed and Sohail 2008; Arends and Hordijk 2016; Sander 2016); fast food restaurants (Zylicz 2002); urban entertainment centers and shopping malls (Van Staden 1984; Buss 1995; Matthews et al. 2000; Salvadori 2002; Díaz-Rodríguez et al. 2015; Saif 2019); pedestrian zones and main streets (Van Staden 1984; Talen and Coffindaffer 1999); and even entire city centers (Zylicz 2002; Díaz-Rodríguez et al. 2015; Sander 2016).

As early as the 1930s, children in Germany had a fascination for department stores and regarded them with admiration (Muchow and Muchow 2012 [1935]) even though, or especially because, they were allowed to enter spaces meant for consumption only when accompanied by adults. What is more, recent studies have revealed that young people—although targeted as consumers more and more since the early 1960s—continue to be seen as unaccepted in spaces of consumption; however, over time they have developed tactics and strategies to appropriate their preferred spaces of consumption to suit their needs. A case in point is that of expatriate teenagers living in Shanghai's gated communities, who described a convenience store located on a small street outside the gated compound as a popular meeting point for socializing with friends and peers during their free time after school:

> Sometimes the students plug in their mp3 players to a stereo that the store has put up outside. Listening to their music, they play pool or simply hang out and discuss the songs, exams and homework issues, weekend plans or problems they have with classmates, teachers or parents. A few male teenagers even come here to hang out after school or in the evenings to drink beer, smoke and chat.
>
> (Sander 2016: 242)

Here it is worth noting the overt way in which the young people turned a local store into their hangout by simply reading and acting on the available affordances; going and remaining there allowed them to circumvent their caretakers' gaze and control.

For similar reasons, though under quite different circumstances, young people are drawn to shopping malls and have a positive perception of them (Matthews et al. 2000; Saif 2019). Our findings show that young people mostly see shopping

malls as a safe setting for socialization and value specific features, such as their cleanliness and climate-controlled atmosphere (Buss 1995; Matthews et al. 2000; Salvadori 2002; Malone 2013; Saif 2019). Indian teenagers in the city of Kochi, for example, enjoyed going to the mall because they could talk to and play with their friends or simply watch people passing by. They highlighted several specific aspects that made a mall their favorite spot: it should be easily accessible, have a modern design, offer an attractive variety of brands, and have a buzz of excitement and expectation. "[T]his relates to what happens in the [shopping] center, that is, what to do, what to see, and what to react to" (Saif 2019: 9). This positive description, moreover, is very much in line with that of British young people frequenting five malls in the East Midlands at the turn of the 21st century. According to one of the interviewees, malls were exciting spaces full of new adventures where the see-and-be-seen dynamics were part of their quintessence (Matthews et al. 2000). Around the same time, but under quite contrasting living conditions, a nearby shopping center constituted an enticing space for the young dwellers of the Canaansland squatter camp in Johannesburg, South Africa, due to the extraordinary offers found there juxtaposed to their harsh reality, such as "window-shopping, rides on escalators and video games" (Swart-Kruger 2002: 120). A conspicuous detail from this study is that young people were actually granted permission by their parents to visit the mall but were constantly chastised by adults while there on account of not only their squatter stigma but also the belief that they ought to be helping around their homes (i.e., shacks) instead.

While these young squatter camp residents were not explicitly seeking to escape parental control by visiting the shopping center, malls appealed to Indian teens in Kochi (Saif 2019) and Zambian youths in Lusaka (Gough 2008) alike because they offered them a means to escape the control and supervision of both their parents and teachers. We can identify a paradox here: whereas young people in general may gain more autonomy and experience a comparably higher degree of freedom to perform their self-determined (socializing) spatial practices, this occurs within the confines of spaces that are known to be prominently and constantly monitored through surveillance measures and equipment. In other words, while young people perceive the "typical" control exerted by parents and teachers negatively, they do not mind security guards and cameras at malls (see Chapter 7). The study on young Britons from the East Midlands (Matthews et al. 2000: 291) demonstrates that the safety perceived within shopping malls was greatly appreciated as they provided youths with enough liberty to exercise their individuality and develop their identities without having to take major risks (such as confronting other users in a public park or square). While the increasing momentum gained by shopping centers among young people traverses diverse geographic contexts, it remains very much associated with middle- to high-income populations. Hence, inequality marks a gap in the way young people whose everyday lives unfold within the same Geographic coordinates perceive shopping malls. For example, whereas meeting at and hanging out in malls was a common spatial practice for middle-class youths in Lusaka, their low-income counterparts lacked both access to malls (some would not even dare to enter them) and alternative spaces to meet and interact (Gough 2008).

As we pointed out earlier, our *meta-analysis* indicates that outdoor commercial areas represent other spaces of consumption that speak prominently to young people. Similar to indoor malls, young people have a positive perception of open-air spaces of consumption (pedestrian zones, shopping streets, and central plazas) due to their heterogeneous activities and buzzing atmosphere. According to our results, adolescents especially enjoy going to public spaces in city centers and make the most of both commercial and cultural activities (Seggern et al. 2009; Díaz-Rodríguez et al. 2015; Serrano 2015; Sander 2016). For instance, during the second half of the 2010s, young people in Santa Cruz de Tenerife, Spain, normally agreed to meet up in a public plaza to sit and chat, listen to music, or skateboard. Afterward, they would head to a shopping center to grab a bite to eat, catch a movie, or try out video games. In accordance with gendered preferences, some of the researched youths preferred to stroll the streets, go window shopping, and possibly eat or drink something at an outside food stand (Díaz-Rodríguez et al. 2015). As hinted at in this study, the affinity for spaces in the city is greatly influenced by age, gender, socioeconomic status, and cultural background. With regard to gender, for example, male adolescents in Barcelona growing up during the 2010s in the neighborhood of Besós-Maresme chose "to play football or visit the cybercafé to play videogames," while teenage girls preferred going to the mall, rambling, and (window) shopping (Ortiz et al. 2014: 47). As these two studies indicate, young people can be constantly on the move throughout city centers, thereby covering and making use of a range of spaces (see Chapter 4). Consequently, they develop a mental image of a spatial network composed of the physical-material spaces they use. As manifold as the spaces and uses can be, we have also traced points of intersection to determine why young people favor inner-city areas. For the young Tenerifians, the fact that inner-city spaces were well maintained and offered a wide range of consumption options was paramount: something that almost universally magnetizes young people with purchase power. Another recurring factor, as in the case of indoor shopping malls, is safety. As opposed to public spaces on the outskirts of where they lived, young people in Santa Cruz de Tenerife deemed the historical city center to be much safer and thus felt at ease there (Díaz-Rodríguez et al. 2015).

Given the considerable amount of time that young people spend there, both outdoor and indoor spaces of consumption end up having a direct impact on their identity formation through spatial practices. From developing the confidence to appropriate a local convenience store (Sander 2016) or shopping mall (Matthews et al. 2000; Saif 2019) to freely roaming shopping streets, plazas, and pedestrian zones (Ortiz et al. 2014; Díaz-Rodríguez et al. 2015) and even undergoing explicit and blatant socio-spatial exclusion (Swart-Kruger 2002: 120; Gough 2008), we see a *spatially anchored belonging* (see Chapter 6) at play that allows young people to experience social interaction and express their identities in spaces of consumption, while painfully reminding them where they do not belong.

Home: From (gendered) safety to a digital gateway

The home—together with its surrounding spaces—is an integral part of young people's spatialities (see Chapter 4). Amid the constellation of the (everyday) spaces

that compose those spatialities, the home can be rendered somewhat ambiguous. Young people may *spatially discern and perceive* (see Chapter 6) their homes as relaxed and uncrowded and appreciate the nice atmosphere (Van Staden 1984; Zylicz 2002; Ziemer 2011; Carroll et al. 2015). Furthermore, young people are aware of the physical and social affordances they have at their disposal and value them irrespective of the type and location of their homes. For instance, young Aucklanders in the early 2010s described their homes fondly as their "favourite places in which to play, whether they lived in a standalone house with a garden in the suburbs or in an inner-city townhouse or apartment" (Carroll et al. 2015: 11). Similarly, some Varsovians growing up during the late 1980s and early 1990s saw their homes as a space "that is always peaceful, where there are lots of things to do, where one can relax and be with one's family." Yet, this study also illustrates how ambivalent (and contrasting) the feelings associated with the home can actually be. Whereas one interviewee explained, "It's cool in my house; I can lie down and listen to my music and nobody disturbs me," other participants did not relate as well with either their homes or families and preferred to spend their time at one of the daycare centers for children from dysfunctional families (Zylicz 2002: 209). Much like the case of Polish young people, who regarded their homes as spheres of privacy and intimacy, Armenian youths living in the Russian city of Krasnodar during the 2010s considered their homes to be a conglomerate of both private and shared spaces: "Even when parents are at home it appears that young people do not feel the need for privacy. One's room or kitchen is private enough to have a friend around" (Ziemer 2011: 233).

The positive spatial perception (and subsequent connotation) that young people have of their home comes not only from within (as indicated in the studies above) but also from the role it plays within the broader landscape of their everyday spatialities. More specifically, in disadvantaged neighborhoods, the home (environment) is almost unequivocally a reliable safe space for young people (Buss 1995; Malone and Hasluck 2002; Salvadori 2002; Serrano 2015). For example, the vast majority of young US-Americans growing up in five urban neighborhoods of Los Angeles during the 1990s assessed their homes as the "safest place in the city" and as an "oasis or cocoon" immersed in a threatening urban environment characterized by "shooting[s], 'gang banging', 'drugs', 'bad people' and fighting […]" (Buss 1995: 345). At about the same time, a group of young Melburnians in the suburban, disadvantaged, and ethnically mixed neighborhood of Braybrook were similarly described as "homebodies" because their spatial practices were primarily restricted to the private sphere of their homes as a result of gradually withdrawing from the unwelcoming streets (Malone and Hasluck 2002).

Such a retreat to the home is not exclusively caused by a hostile (immediate) socio-spatial environment; parental fears and restrictions lead to young people's seclusion from the outside world, too (see Chapters 6 and 7). To be sure, young people's perceptions of space, spatial practices, and mobility are heavily influenced and thus determined by their parents' safety concerns, which can result in home-based leisure activities or, at best, playdates at friends' or relatives' homes (Schak 1972; Van Staden 1984; Carroll et al. 2015). Furthermore, parental aspirations and mentalities, traversing varied geographic contexts,

socioeconomic strata, and cultural backgrounds, are palpable across our sample of meta-analyzed studies. Middle-class Taiwanese children growing up in Taipei during the 1970s serve as a good case in point as their mothers strongly believed indoor environments to be the "natural" space for playing (Schak 1972). As a consequence,

> instead of having [a] close association with their neighbours, they either stay inside their homes where they are shielded from the outside by a wall or associate with old friends and kinsmen who tend to be scattered throughout the city.
>
> (Schak 1972: 200)

Likewise, children in 1980s New York (Van Staden 1984) and in 2010s Auckland (Carroll et al. 2015) would meet their friends at home and play with their siblings and relatives. Furthermore, our sample shows that this trend not only continued (from the 1970s to the 2010s), but was also impacted by technological influxes (such as the television and Internet), which coexisted rather than outdated one another. For instance, the Aucklanders spent their free time "playing on computers, Xbox and tablets, […] watching television and DVDs, […] [and] reading and drawing" (Carroll et al. 2015: 11).

Moreover, gender is also a prominent determinant of the degree to which young people remain at home. Girls, unsurprisingly, are glaringly subjected to mobility constraints, a lack of freedom, and orders to stay home (Bannerjee und Driskell 2002; Malone und Hasluck 2002; Hammond 2003; Ahmed und Sohail 2008; Gough 2008; Ziemer 2011) (see also Chapter 7). The abovementioned study on young people living on the outskirts of Melbourne illustrates this perfectly:

> Favourite and most frequented places correlated for girls—both were the home and home sites. Most girls interviewed fitted into the two groups of either carers or homebodies: that is, they either stayed at home or the home of friends so they could care for a sibling or because they had purposely retreated from the public domain.
>
> (Malone and Hasluck 2002: 88)

As the excerpt reveals, the fact that girls perceive the intimate and private space of the home as positive and mostly spend their time there results from cultural and social impositions that girls appear to have already internalized rather than out of choice. Similarly, the activities of young Bangalorean girls in the self-built settlement of Sathyanagar, in contrast to those of boys, were

> usually located closer to home; they spend time with friends and play on the nearby streets (which are void of auto traffic) or in the small niche areas between homes. Protected spaces such as the non-formal school or the rooms located above the new toilet complex – when they were available – also served as play areas.
>
> (Bannerjee and Driskell 2002: 144)

Although these girls actually dared to defy, to a greater or lesser extent, the restrictions their homes placed on them by producing spaces of play within the material interstices of the settlement, "in general, girls had fewer play opportunities than boys as they were typically expected to help more around the home and given less free rein to explore areas away from the home or the homes of relatives" (Bannerjee and Driskell 2002: 144). What is more, some girls were even berated for simply playing and therefore had to come up with solutions: "'At home they scold me if I play. They say I am too grown-up for that. So I run off to my aunt's place. There she does not mind.' (Ghousiya, age 14)" (Bannerjee and Driskell 2002: 144). Furthermore, parental influence restricts play both outdoors (as illustrated by the studies above) and indoors. For example, Malaysian children living in a high-rise urban condominium stressed how their parents explicitly told them what, when, and how to play at home (Agha et al. 2019). Similarly, many of the children growing up in the small community of Churquiales, Bolivia, pointed out that they were "only able to play freely at home when their parents are out, or when all the household tasks have been completed" (Punch 2000: 50). Expatriate teenagers in gated communities in Shanghai also capitalized on their parents' absence and turned their rooms into hangouts to meet with friends whenever they were away (Sander 2016).

Aside from (and sometimes in addition to) gender, the physical-material arrangements and design features of homes (such as the internal architectural layout and size) either encourage or hinder practices such as playing or meeting friends. For example, while Taiwanese working-class children (Schak 1972) and Zambian youths (Gough 2008) had no choice but to play and gather outside given how cramped and overcrowded their homes were, US-American children in the neighborhood of San Bernardino in Oakland spent considerable amounts of time in their backyards, where they could play at ease with friends and siblings "surrounded by huge oak and apple trees and gardens of seasonal vegetables" (Berg and Medrich 1980: 330). A decade later in the same city, the architectural scheme of the Oak Park housing project allowed young Cambodian and Mexican immigrant girls to socialize and play while still complying with family rules. The following example highlights how gender can intersect with other factors:

> The corridors, especially on the second floor, are a very important social place connecting the interior of the apartment with the outside. Small children can play there while they are watched by their siblings from inside the apartment and from the courtyard below, an activity that many Cambodian girls included in their drawings. Mexican girls, from the first floor where their apartments are, use the perimeter of the courtyard in the same way.
>
> (Salvadori 2002: 192)

In broad terms, the rise of media use is a striking factor accentuating and accelerating how much time young people spend playing at home, which is perceived positively in turn. Particularly throughout the Global North, computer-based entertainment and communication, as home-based affordances, tie young people to their homes (McNamee 1998; Holloway and Valentine 2001; Malone and Hasluck 2002;

Ziemer 2011; Almeida et al. 2014; Carroll et al. 2015; Díaz-Rodríguez et al. 2015; Sander 2016). As pointed out above, Armenian youths in the city of Krasnodar, Russia, saw their homes as an adaptable space to be shared with other family members. This perspective appears effective because they had the possibility to use technology (Internet and smartphones), which "provide another means to create a space where [they can] […] communicate with others" (Ziemer 2011: 233). Likewise, Spanish young people in Santa Cruz de Tenerife met friends at their homes to play video games. If for some reason they could not hang out face-to-face, they would interact at a distance via computer chat (Díaz-Rodríguez et al. 2015). In fact, as demonstrated by the case of young Portuguese in the cities of Lisbon, Porto, and Viseu who would simply switch on their computer and leave it running whenever they were at home, this practice has arguably become somewhat universal for young people who have the privilege of owning a laptop (Almeida et al. 2014).

Incidentally, just like in the case of material arrangements and design features, gender intersects with media consumption at home. For instance, young Britons during the early 1990s exhibited a clear gender divide due to unequal access to and control over computers and video game consoles (McNamee 1998). According to this study, such technological devices were almost always found in boys' bedrooms, and practices of control over their use reflected gender roles. For example, one of the researched boys hid certain games from his younger sister (though she managed to circumvent his authority and played whenever he was not home) (McNamee 1998). In this regard, it is interesting to note that the use of (digital) devices may have drawn young males to their homes, which is traditionally (though not necessarily out of choice!) the domain of young females. Moreover, this might have given way to a twofold spatial perception of home along gender lines. In the research on young Melburnians, for example, being at home but connected via computer or a TV window into the world lessened the burden of care and domestic chores imposed on girls with an immigrant background and simultaneously granted them access to the outside world (through television and the computer) (Malone and Hasluck 2002). Nevertheless, boys and girls alike increasingly preferred to stay at home to use their computers and/or watch television rather than meeting with friends in person, with the study's authors designating them as "homebodies" (Malone and Hasluck 2002). Although the findings are not (yet) conclusive, excessive media consumption and unrestrained interaction with digital devices may lead young people to develop feelings of isolation and disconnectedness from their (immediate) urban environments, like in the case of an expatriate teenager secluded in a gated compound in Shanghai. He drew "himself in a room seemingly far away from the city that is symbolized by skyscrapers. [His] stick figure looks isolated and is only accompanied by a computer and a pile of homework" (Sander 2016: 241). All in all, our findings suggest a trend of home seclusion driven by media and technology in the Global North, while it continues to be the exception in the Global South where young people use digital devices with an Internet connection at their homes only when the socioeconomic circumstance of their families allow it (Arends and Hordijk 2016; Saif 2019).

As discussed above, the rather prevalent positive spatial perception of home is quite multifaceted and seems to move along a continuum between two (not necessarily opposite or mutually exclusive) poles: one that regards home as (gendered) safe and another that denotes it as a digital gateway. Be that as it may, we have also noticed in some of the meta-analyzed studies that home may also be subject to blurred and uncommon perceptions (and connotations). Young people who grew up in multiple locations, for example, had to redefine their notion of "home" on various occasions: they relocated nationally or internationally for their education (Tse and Waters 2013; Khan 2018); their parents got a job in another country (Sander 2016); their families were displaced (Hammond 2003); they were at constant risk of eviction and subsequent relocation (Swart-Kruger 2002); siblings orphaned as a result of HIV/AIDS lived with relatives in changing constellations (Gough 2008); or they were even homeless (van Blerk 2006; Beazley 2016). Although the home endures as a central reference underpinning the spatial knowledge of young people, its perception can vary widely.

School, the campus, and routes to school: Gaining and losing time and space

Very much like the notion of home, young people attribute a multidimensional and somewhat contradictory character to (both the institutional and material-physical) school (and at times the campus; see Chapter 6). First and foremost, school is an important venue for socialization because it offers young people the opportunity to meet with their peers. In this regard, we noticed similarities within our sample across urban (Payne and Jones 1977; Van Staden 1984; Buss 1995; Zylicz 2002) and rural (Punch 2000; Katz 2004; Cummins 2009) settings and throughout diverse geographic contexts. For instance, when asked to describe their suburban school, Canadian young people growing up in 1970s Calgary emphasized that they used the playground and an adjacent park to play. As they got older, their typical small children games gave way to "games of baseball and soccer, organized and impromptu" (Payne and Jones 1977: 5). Comparably, children in the rural community of Churquiales, Bolivia, named "the football pitch and […] the community square: both spaces at school" (Punch 2000: 55) as their favorite places to play and would even show up early in the morning before class "to play in the square until the bell was rung" (ibid.: 56). It is noteworthy that the young people in these two examples perceived and recognized adjacent spaces as suitable options for meeting with their peers and playing rather than the school building itself. However, given their proximity, the positive spatial perception of such spaces extends to the school as a whole.

Furthermore, the perception of the school seems to be more contradictory and convoluted in neighborhoods that are perceived by young people as insecure (because they have already been stigmatized as such). For example, in mid-1990s Los Angeles, while some children saw their schools as a safe space to escape from their hostile neighborhoods, others feared that the school grounds could not keep out potential dangers:

> They express concerns that these barriers will be penetrated or eroded, and that the space will no longer be a safe haven for them: 'The gates at the

> school don't help. By the basketball courts, the gate opens, and bad kids get through'.
>
> (Buss 1995: 347)

Young people growing up in Sathyanagar, a self-built settlement on the outskirts of Bangalore, India, regarded school as one of the few "protected spaces" that also served as an area to play, for girls in particular (Bannerjee and Driskell 2002: 144). Oddly enough, the ambiguity concerning the perception of the school by US-American children in the study above can also be discerned among young people growing up in much less conflict-ridden neighborhoods. Young Poles living in Warsaw during the late 1980s and early 1990s

> said […] that they often spend their time at home or school, [and it was] […] not certain whether this was good or bad, because many children dislike school; but there are also children like Agnieszka (aged 15) for whom school 'is like a club where you come to meet your friends'.
>
> (Zylicz 2002: 209)

Based on these studies, school can be perceived positively, provided it offers opportunities to meet with friends and play. However, if the school appears susceptible to outside menaces, it might be perceived negatively as it is associated with (potential) risks.

Being mobile on the way to school also seems to be especially important to young people. Studies from the 1970s onward demonstrate that this act of going to and from school has a direct impact on young people's spatial practices and spatial perception of their neighborhoods and cities. Either positive or negative spatial perception of routes to school (that is, the sequence of traversed spaces), be it in the Global South (Punch 2000; Swart-Kruger 2002; Gough 2008; Gülgönen and Corona 2015; Serrano 2015) or Global North (Lynch 1977; Berg and Medrich 1980; Van Staden 1984), is influenced by socioeconomic status, geographic context, gender, distance, time, and mode of transportation. The route to school can therefore constitute an autonomous and self-determined time and space, which allows young people to play and hang out with friends despite seemingly incompatible conditions such as traffic, required public transportation, or strangers. For example, both South African girls and boys from the Canaansland squatter camp in Johannesburg intentionally stretched out the time and space of their route back home from school:

> [They] seldom remembered the boundary limits set by parents. They did not return home first since this would mean having to walk all the way back to the play sites. It would also mean that they would forfeit their time to roam and play, since parents were strict in insisting that they do chores before they could begin play or homework.
>
> (Swart-Kruger 2002: 120)

Hence, the spatial practices of these young people in Johannesburg, though daring, were arguably determined based on opportunity-cost reasoning: the potential

implications of going straight home (i.e., getting stuck helping around and/or doing homework) as opposed to delaying the return and going elsewhere to play. Not surprisingly, many opted for the latter and headed to the most popular play space.

The fact that these young people walked to school played a decisive role in their decision not to immediately return home after school. Likewise, walking was also discernable among Zambian youths from low-income neighborhoods in Lusaka as an enabling spatial practice. For some of the interviewees, their journey to and from school had a marked social function as it provided them with the time and space to socialize with peers without adult supervision (Gough 2008). In Brooklyn and Manhattan during the late 1970s and early 1980s, young residents experienced their route to school positively because they were in the company of their classmates. Furthermore, walking to school seems to have constituted an arena of non-formal learning (see Chapter 6) for these young New Yorkers since "walking appeared to provide a less socially controlled experience of the neighborhood in which opportunities to explore and familiarize themselves with aspects of their socio-physical surroundings are more readily realized" (Van Staden 1984: 114). Thus, the route to school—or, to be more precise, the journey to and from school—is an example of the centrality of the spatial practice of *being mobile* within young people's everyday spatialities (see Chapter 4). It offers them freedom and autonomy to choose where to go and what to do. This is a key factor of their *spatial cognizance*, meaning their capacity to be aware of and understand, without help, embodied-experienced stocks of spatial knowledge (see Chapter 6).

Another aspect that influences how cognizant young people may become along their routes to school is the actual distance they have to cover (Berg and Medrich 1980; Serrano 2015). Long distances tend to hinder young people's autonomy and latitude to roam on their own because they are almost always driven to school. One example is that of young Oaklanders in the mid-1970s who asked their parents for more independence: "Many of the children said they would like to be allowed to walk more places on their own" (Berg and Medrich 1980: 328). These children were finding it difficult to explore their low-density neighborhoods and rarely had the opportunity to spend time with their peers. As a result, "while they can appreciate the space and the quiet, they are painfully isolated from the spontaneous and unplanned life cherished by children in the other neighborhoods studied" (Berg and Medrich 1980: 330). In addition, our findings suggest that caretakers with sufficient time and money generally take their children to school and pick them up again, at least until they have turned a certain age (Berg and Medrich 1980; Gülgönen and Corona 2015; Serrano 2015). Gender, like age, represents another important factor in how likely young people are to be allowed to go to school by themselves. Boys, unsurprisingly, are given more freedom not only to go to school on their own, but also to walk around in general (Malone 2013).

Modes of transportation underpin young people's spatial perception of their route to school. While it is tempting to claim that young people who commute by public transportation to their schools, in contrast to those who are driven, invariably have a positive perception of their route to school due to the level of autonomy riding the subway or bus entails, the studies we have meta-analyzed indicate

otherwise. For instance, in the study on young Brooklynites and Manhattanites, interviewees who rode the bus recounted their misgivings:

> being pushed or squashed […], no place to sit […], too many passengers […], or people crowding parts of the aisles and not moving to the back of the bus […]. Other dislikes involved being bothered by other kids […], waiting for the bus […], and the bus passing one's stop without picking up passengers.
>
> (Van Staden 1984: 113)

Interviewees who took the subway reported similar issues, complaining about "foul air or bad smells […] and vandalism" as well (Van Staden 1984: 114). Such sentiments on using public transportation resonate with Bolivian children in the capital city of La Paz, who needed to take the bus to their school downtown. They spoke of harsh and unequal social interactions with adults, from mistreatment and physical struggles to witnessing violent situations (Serrano 2015). Such circumstances shaped some of the children's perception of the route to school, who described it as harsh because riding the bus to school on their own exposed them to unsafe conditions at a young age in spite of being granted more autonomy (Serrano 2015).

Overall, both the school (campus and adjacent spaces) and the route to school are subject to manifold positive and negative spatial perceptions by young people, which in turn influence their production of embodied-experienced stocks of spatial knowledge (see Chapter 6). It is here where young people constantly gain and lose time and space.

Spaces of appropriation: Customizing fairly unorthodox spaces and virtual domains

Several of the meta-analyzed studies denote that by repurposing and appropriating space, young people inevitably foster a positive perception of those spaces and identify with them (Muchow and Muchow 2012 [1935]; Tischer and Engelke 1978; Apel et al. 1985). Early studies on play spaces, for instance, illustrate how young people perceive them positively in accordance with opportunities for physical and symbolic appropriation (Hayward et al. 1974; Lynch 1977; Tischer and Engelke 1978). A shift regarding the spatial and temporal breadth of practices of appropriation, ranging from taking over vast empty plots to niches, can be observed in urban settings. In a pioneering study on the everyday lives of young people (Lynch 1977), they performed material customizations (that is, spatial practices of appropriation) in fairly unorthodox spaces such as wastelands and streets in spite of apparent dangers. Later studies from our sample highlight material adaptations at a micro-level, such as gardening or playing music in a corner shop (Apel et al. 1985; Buss 1995; Sander 2016).

Young people's spatial appropriation of their neighborhoods is the result of a much more gradual process reflecting the extensive and detailed knowledge they come to possess of their immediate living surroundings, which is acquired over time as they grow up there. For example, Barcelonian adolescents in the

Besós-Maresme neighborhood were able to territorialize a wide array of micro spaces, for there were "not that many spaces that are perceived as forbidden in their daily lives: 'As I live here, all the spaces in the neighborhood are familiar to me and I am always at ease' (girl from discussion group A)" (Ortiz et al. 2014: 51). Similarly, in the case of children in Los Angeles growing up during the early 1990s in five conflict-ridden urban neighborhoods, little niches (pieces of public art or landmarks) were part of their network of micro spaces that gave them a sense of control and comfort in the spaces they navigated on a daily basis (Buss 1995).

Most of the studies from our meta-analysis suggest that the advent of *information and communication technology* and widespread access to the Internet through digital devices have substantially broadened the ways in which young people appropriate space. Students living in Tel Aviv, Israel, for instance, used their smartphones to create and demarcate a personalized, portable, and self-determined territory characterized as "the space in which an individual, through the use of a technological device, can extend his personal space, creating a complex matrix (within programmatic limitations) of social spheres and interactions that is characterized by a multidimensional set of relationships defined by events and interactions" (Hatuka and Toch 2016: 2203). This multidimensionality is also reflected in how the virtual space of social networks allowed Peruvian girls in Lima to experiment with identity claims that would not have been acceptable in physical public space:

> These young women are maneuvering online in making assertive identity announcements and they are adopting a more open sexual script. They do this within the virtual sphere among their peers, where it might be more acceptable. This can be interpreted as these young women's agency in the sense that they believe they are capable and morally strong enough to select a different identity than their culture dictates, at least online. […] The showcasing of gendered sexual agency through online mediums [ought to] foremost be understood as a practice of identity experimentation and does not necessarily translate into immediate counter-discourse.
>
> (Arends and Hordijk 2016: 240)

As disruptive and transgressive practices of spatial appropriation might have actually become, as in these two cases, technological advances have also given way to more subtle forms of spatial appropriation that are still relevant for young people's positive spatial perception, such as playing music at a convenience store to turn it into a hangout by expatriate youth in China (Sander 2016).

The influx of technology (notably, through the use of smartphones) into young people's spatial knowledge has significantly altered their spatial perception by bringing about an increasing lack of attention to their immediate physical and social environment. The young people from Tel Aviv, for example, were asked to describe physical spaces they had visited throughout the day. Smartphone users gave less detailed descriptions than users of ordinary mobile phones. This inconsistency might indicate "new ways of addressing the sensory stimulation of the

city and personal technological devices" (Hatuka and Toch 2016: 2199). While it remains to be seen, it is likely that spatial practices of appropriation, suspended between online (inter)actions and offline physical realms, will continue to have a positive impact on young people's perception of space.

Young people assessing spaces: Stable criteria, variations, ambiguities, and shifts

Throughout our sample, we identified a relatively stable set of criteria for the positive spatial perception of young people since the 1970s. First, young people care about whether spaces allow them to socialize autonomously. Young people are also aware of both socio-spatial limitations (which vary according to gender and socioeconomic status) and (im)material conditions and elements that permit their preferred spatial practices (of appropriation). Digital devices represent a new enabling factor that adds affordances for meeting peers to various spaces, such as the home and spaces of consumption.

Overall, there seems to be a fine line between young people feeling comfortable in the presence of other people in a specific (public) space and when, where, and how certain degrees of supervision and control are wanted (or tolerated) in exchange for safety (see Chapter 7). In addition, young people mostly welcome spaces that offer moderated risk-taking. Furthermore, while our findings show a number of reasons why young people enjoy spending their (leisure) time outside with peers, we also noticed a shift regarding the perception (and evaluation) of (un) developed green spaces from a predominantly positive to a mixed sentiment on developed green spaces such as parks and playgrounds, for instance. This change could be attributed to various aspects: material setup and maintenance, house rules, parental restrictions, and, particularly for older youths, experiences of adult prejudice.

Within the constellation of the spaces composing young people's everyday spatialities (see Chapter 4), home and school are perceived somewhat ambiguously. There are several factors (insecurity, parental and cultural mandates, and others) that influence why and how long young people either decide or are forced to withdraw to their homes and spend significantly larger amounts of time at school and doing homework, a tendency that increasingly blurs the boundary between school and after-school times and spaces. In this regard, gender and class both intersect with and directly shape this trend. The girls across all five decades of our sample almost universally and irrespective of their socioeconomic status are confined to their homes (or, at best, allowed to remain within its vicinity). Moreover, both home and school, when seen as shelters, are almost always perceived positively by young people who believe the broader landscape of spaces in their everyday lives to be hostile and dangerous. In contrast, home and school are perceived negatively when associated with adult control (parents/teachers). Depending on its affordances (determined by a range of factors, such as architectural layout, size, and crowdedness), the home can be highly regarded by young people to the extent that they are provided with opportunities to play

and meet with friends. In addition, home-based access to the Internet through (mobile) devices has gained staggering traction among young people to the point that they willingly stay home instead of going out and hanging out with friends (although growing availability of mobile Internet may eventually challenge this behavior). From the onset of television to the advent of the Internet, the process of mediatization (see Chapter 2) has drawn young people (back) to their homes, which offer them a gateway to the outside physical world—something girls and boys alike appear to appreciate.

The school (in addition to its campus and adjoining spaces) is perceived positively as long as young people are provided with suitable conditions for meeting and socializing with peers. However, schooling diminishes the positive perception of school because homework takes up a great deal of the leisure time and space of young people from privileged backgrounds (mostly, albeit not exclusively, in the Global North) and invades the spatial and temporal structures of young people throughout the Global South, which are already dominated by demanding household chores and duties. The route to school constitutes a relevant social space and an ideal environment for non-formal learning (see Chapters 2 and 6) among young people, particularly when they walk to school. In contrast, when taken to and picked from school (especially by car), young people only perceive and experience the route to school fleetingly and partially. As a result, this experience is insignificant at best (some of the young people from our sample do complain and demand more liberty to roam, not only to attend school but also in the general framework of their practices of being mobile).

Furthermore, the spatial perception of spaces of consumption is somewhat baffling. Shopping malls are cherished by young people, who see them as secure and suitable enough to pursue their preferred spatial practices. In other words, young people perceive such spaces positively due to the *spatial liberty* they offer (see Chapter 6). Accordingly, our findings suggest that spaces of consumption—from convenience stores and department stores to shopping malls and streets—have gained more importance as hangouts among young people compared to their homes, schools, and the public spaces in their neighborhoods. We believe this phenomenon is not by chance and is instead also by design: commercialization has been successful enough to gain and keep the attention of young people, by both regarding them as (potential) consumers and responding to their spatial needs and desires.

Finally, spaces (and concurrent practices) of appropriation have been boosted by the widespread use of portable digital devices. As a result, young people, by means of significantly more autonomous and private communication, can determine where and when to meet friends: for instance, in a shopping mall where they can (temporarily) appropriate the space. Moreover, we noticed a shift in the scope of spaces of appropriation from fairly large sites (such as wastelands and streets) to micro spaces (such as a street corner or bench). We see this significant scaling down of the spaces of appropriation as a means by which young people can offset insufficient (or even a lack of) affordances in their (natural/built) everyday environments—a condition that characterizes perceived spaces as negative, which we explore in the next subsections.

Being at a loss: Emissions, deterioration, and poor infrastructure

Multiple studies from our sample illustrate how some factors can cause young people to have an extremely negative perception of space. Specifically, emissions, including noise pollution and litter, are a recurrent issue across diverse geographic contexts in the Global South (Lynch 1977; Swart-Kruger 2002; Gülgönen and Corona 2015; Serrano 2015) and Global North (Lynch 1977; Van Staden 1984; Buss 1995; Zylicz 2002; Malone 2013). Although emissions were a constant across such a wide spectrum of studies, we also found a handful of exceptions worth underscoring. Brownfields and vacant lots used informally as landfills are an example. Whereas the vast majority of young people are repelled by them, young Australians growing up in suburban Melbourne and young Argentinians living in a disadvantaged barrio in Salta during the 70s had mixed feelings as they were "attracted to, and also somewhat fearful of the waste grounds within their reach: the littered banks of the Maribyrnong River in Melbourne, or the scarred hills behind Las Rosas in Salta" (Lynch 1977: 25). Similarly, but under much more dire conditions, homeless young people living on the streets of Kampala, Uganda (van Blerk 2006), and Cape Town, South Africa (van Blerk 2013), turned wastelands and dumping grounds into private and safe spaces.

In various studies from our sample, young people also name noise pollution, caused primarily by traffic (Van Staden 1984; Zylicz 2002; Ahmed and Sohail 2008; Cummins 2009), aggression in the form of fights, and strangers as dangerous (Lynch 1977; Van Staden 1984; Buss 1995; Swart-Kruger 2002), as an unpleasant factor in space. However, like in the case of litter, there are some instances in which noise does not necessarily cause young people to have a negative perception of space. Young Britons who regularly visited five malls in the East Midlands were drawn there because "there was a continual flux, lots of noise, and a rolling stream of people" (Matthews et al. 2000: 286). In this study, noise was an integral part of a positively perceived vivid atmosphere, which makes the affordances of such spaces of consumption appealing. In sharp contrast to this case, for young Bangaloreans living in the self-built settlement of Sathyanagar, India, due to

> their cramped home environments and the noise and disruptions throughout the area, it was often necessary for them to find an out-of-the-way corner in which to study, or to either stay up late or get up early (so long as a light source could be found).
>
> (Bannerjee and Driskell 2002: 144)

Similarly, young Johannesburgers in the squatter camp of Canaansland had to grapple with comparable ominous circumstances to complete their homework assignments:

> The noise outside and poor visibility indoors led many children to neglect their homework. Conscientious children found it hard to work in peace. Drunken adults lurched against the walls of shacks located on main

> pathways through the camp, but children who lived in cul-de-sacs were able to work at small tables outdoors, before most adults returned at twilight.
>
> (Swart-Kruger 2002: 119)

Both Johannesburgers and Bangaloreans perceived their homes and neighborhoods negatively due to the noise, conflicting with their desire for a living environment quiet enough to study and play.

Instead of being triggered by a single aspect, young people's negative spatial perceptions often result from a combination of factors: for instance, emissions and social conditions. In that regard, since the earliest studies from our sample in the 1970s, we see intersectional factors causing negative spatial perception, especially in marginalized neighborhoods of both the Global South and North. Young Mexicans living in the impoverished barrio of Ecatepec, Toluca, in the 1970s "dislike the trash that piles up there and the mud when it rains. They are afraid that they can fall into ditches or holes. They are afraid of the abandoned houses where there are drunks and robbers" (Lynch 1977: 28). By the same token, we identified startling parallels in studies conducted a few years later on teenager in Toronto (van Vliet 1981) and young people in Brooklyn and Manhattan (Van Staden 1984), who regarded noise, dirt, a lack of open space, and unfriendly people to be the downside of their neighborhoods.

Negative perceptions are fueled by the physical and material character of spaces, too. For example, whenever young people become aware of poor maintenance and infrastructure in the built environment of their neighborhoods, their perception of those spaces becomes negative. This is evident throughout studies conducted in both the Global South (Bannerjee and Driskell 2002; Swart-Kruger 2002; Ahmed and Sohail 2008; Serrano 2015) and Global North (Buss 1995; Malone and Hasluck 2002; Zylicz 2002; Burke et al. 2016). More specifically, while perceptual negativity is a response to more severe situations in geographic contexts of the Global South, such as a lack of proper waste management, street lighting, or any maintenance system whatsoever, it is more the physical and material deterioration of (and failure to repair) buildings, sidewalks, streets, and public spaces, combined with litter, that causes young people's negative spatial perception in the Global North. Accordingly, young US-Americans growing up in mid-1990s Los Angeles, California (Buss 1995), and 2010s Notre-Dame, Indiana (Burke et al. 2016), Australians in late 1990s Melbourne (Malone and Hasluck 2002), Poles in late 1990s Warsaw (Zylicz 2002), and Bolivians in early 2010s La Paz (Serrano 2015) seem to have related the material deterioration of their built environments to the social deterioration of their community. Bolivian school children indicated, for example, that

> there is a lack of responsibility for the urban space and living conditions in which the quality of life is deteriorating: a perspective that they feel is not shared by adults, whom they see as 'irresponsible' with regard to the care for the city and the environment.
>
> (Serrano 2015: 13; own translation)

Furthermore, these children saw this negligence in small, yet important details. They believed:

> La Paz is a dirty city because there are […] [hardly any] trash cans […,] 'when you walk down the street in the Prado, I think there are tops on one or two trash cans…' (Natalia 10 years […]); though this is no excuse: '[…] [some] people, because there are no trash cans nearby, throw their trash on the ground; [but] there are other people who, although they don't have a trash can nearby, keep it [with them], when they get home they throw it away, that's good…' (Itzel 11 years old […]).
>
> (Serrano 2015: 14; own translation)

Similarly, graffiti resulted in negative spatial perceptions among young Angelenos, who identified it in a photographic documentation exercise as one of various "[s]ymbolic representations of the social conflicts," because "[t]he[ir] photo journals contain many photographs of graffiti, riot damage, bullet holes, barbed wire, 'no trespassing' signs and other evidence of spatial social conflict" (Buss 1995: 348). A few years later, their Mid-Western counterparts echoed a strikingly similar sentiment (and critical reflection) on graffiti. As one interviewee put it,

> …that's the thing I don't like in my neighborhood. The graffiti. It makes the neighborhood not as good to look at, you know? People who go by see it and…they, like oh, that's an old building and it's got graffiti on it and they stop thinking about what it really is.
>
> (Burke et al. 2016: 160)

Rather than adult-centric misinterpretations of the practice of graffiti, what is noteworthy is young people's maturity to see beyond what meets the eye: in their view, "not only does [graffiti] affect, perhaps, safety (if these are gang markings) but also the perception of visitors" (Burke et al. 2016: 160). However, young people may also be met with backlash regarding graffiti and experience the effects of misconceptions about it. Melburnians were

> often identified as being a public nuisance with their mischievous criminal acts of vandalism and graffiti. When found in public places they were often harassed and accused of causing damage. For these reasons most chose abandoned or out of way places to meet and plan their antics.
>
> (Malone and Hasluck 2002: 100)

The recognition of their alleged participation in (and thus responsibility for) graffiti causing negative spatial perceptions of their neighborhoods comes to the fore in the study on young people in Warszawa, which found that "A few participants mentioned that their major contribution to the welfare of the locality was not doing certain things, such as not littering or not writing graffiti on the walls" (Zylicz 2002: 124). While not drawing graffiti was highlighted by some young Poles as a service to the community, its absence constituted a source of pride for Bolivian children:

"'My neighborhood is great […] There aren't many shoplifters, there aren't any graffiti artists either (…), and it's freer (…) You can walk wherever you want, you're free to your own opinion…' (Evelyn 10 years old […])" (Serrano 2015: 14; own translation). It is worth underscoring that this Bolivian child saw the actual physical quality of the built environment of her neighborhood as granting her not only the freedom to roam but also, and perhaps more intriguingly, the freedom to speak her mind.

The kingdom of the automobile and the realm of undesirability: Dangerous and hindering streetscapes

Dangers related to road traffic are a recurrent trigger of negative spatial perceptions among young people across our sampled studies as early as the 1970s. According to our findings, young people perceive motorized traffic negatively in general both in the Global South (Lynch 1977; Punch 2000; Gülgönen and Corona 2015; Serrano 2015) and the Global North (Lynch 1977; Payne and Jones 1977; Tischer and Engelke 1978; Berg and Medrich 1980; van Vliet 1981; Van Staden 1984; Deutsches Jugendinstitut 1992; Buss 1995; Hitzler 1995; Matthews et al. 2000; Zylicz 2002; Cummins 2009; Carroll et al. 2015). What is more, this perception is also passed on to young people by their parents, which translates into almost never walking the streets on their own due to safety concerns and eventually embracing the perception that doing so is dangerous (Malone 2013; Gülgönen and Corona 2015; Carroll et al. 2015) (see also Chapter 7). Throughout the different decades and geographic contexts—Mexico (Lynch 1977; Gülgönen und Corona 2015), the United States (Berg and Medrich 1980; Buss 1995), Bolivia (Serrano 2015), and Poland (Lynch 1977; Zylicz 2002)—included in our sample, young people specifically mentioned fast and heavy traffic in their neighborhoods as the cause of their feeling of insecurity. Children in 1970s Hanover, Germany, for instance, described how they had to compete for space with cars, both circulating and parked on the streets:

> Playing on the street […] means competing with cars. […], but even side streets are taboo areas for the children; […] mainly the parked cars restrict the possibilities for play, even on the already narrow sidewalks, and 'if there's a scratch on the car, they'd complain right away'.
>
> (Tischer and Engelke 1978: 43; own translation)

Likewise, children's negative spatial perception of streets in 2010s Mexico City was largely influenced by cars. Interviewees considered the streets life-threatening due to having witnessed crashes involving serious injuries, hospitalizations, and even fatalities:

> Once there was a car [whose driver] got a phone call and [he] answered it, he got distracted, and he crashed against a food stand; the woman who sold the food was taken to the hospital; she could not get there on time, so she died.
>
> (Gülgönen and Corona 2015: 216)

Moreover, young people are well aware of other spatial aspects that hinder their independent mobility and foster their feelings of insecurity, such as a lack of public transportation (van Vliet 1981) or overcrowded transport (Van Staden 1984; Serrano 2015), missing sidewalks (a major deterrent to walking around freely), and major roads and railway tracks impeding autonomous mobility and access to spaces (and their affordances) throughout their neighborhoods. The study on US-American children from four neighborhoods in Oakland during the mid-1970s illustrates this point. The authors sustain that traffic was

> a continuing problem and preoccupation with parents and children alike. Traffic kept young people away from the facilities intended for their use (San Bernardino). It kept them from using the streets and sidewalks as a play area (Monterey). And it kept them close to home, physically constrained by major thoroughfares and unregulated traffic (Yuba).
>
> (Berg and Medrich 1980: 342)

Aside from traffic, young people often perceive streets negatively due to the presence of undesirable user groups and their behaviors (e.g., strangers, bad people, and gang members) (Van Staden 1984; Buss 1995; Bannerjee and Driskell 2002; Swart-Kruger 2002; Ahmed and Sohail 2008; Carroll et al. 2015; Díaz-Rodríguez et al. 2015; Gülgönen and Corona 2015). Furthermore, some of the meta-analyzed studies indicate that young people, in time, progressively view the streets as the most hostile space within their neighborhoods and even entire cities (Buss 1995; Ziemer 2011; Gülgönen and Corona 2015; Serrano 2015). Children in Mexico City, for example, were "afraid of being kidnapped or assaulted, and generally feel threatened by strangers" (Gülgönen and Corona 2015: 216). This kidnapping narrative was echoed by children (and their parents) in La Paz, Bolivia (Serrano 2015), and Oakland, United States (Salvadori 2002). For these researched children, the thought of running into a stranger and being abducted filled the streets with a constant (and palpitating) feeling of insecurity. Young Melburnians growing up in the suburban neighborhood of Braybrook during the 1990s had a similar sentiment as their streets

> were recognized by one third of the young people as the place where they felt most in danger. Both boys and girls listed drugs, alcohol, and physical and verbal abuse as the primary cause of fear in the streets. This was due to adults or adult activities (drug taking, drunkenness, policing).
>
> (Malone and Hasluck 2002: 91)

Moreover, gender-differences are perceptible. Whereas unwelcome sexual behavior was an issue for girls, boys were confronted with racial prejudice: "For girls, verbal abuse was normally related to incidents of sexual harassment, and for young people from non-English-speaking backgrounds, it was racial abuse and discrimination" (Malone and Hasluck 2002: 91). Similarly, young Armenian girls living as a minority in the Russian city of Krasnodar during the 2010s considered the

streets to be quite dangerous spaces on particular days of the year, such as Hitler's birthday with the corresponding celebrations:

> '[I]magine 50 skinheads, and you're a girl on your own'. (Armine) […]. From this example, it becomes obvious that Armine has already taken precautionary measures in not leaving the house on Hitler's birthday; however, not all of her ideas are based on personal experience […] but presumably what she had heard on TV or had read in the press.
>
> (Ziemer 2011: 239)

It is worth noting that, just like the fear of being kidnapped felt by Mexican and Bolivian children, the anxieties of this young Armenian girl were partly caused by media consumption (and most likely reinforced by parental narratives). Furthermore, the media may even contribute to negative spatial perceptions on account of young people themselves (and at times their parents) by framing and thereby stigmatizing them as troublemakers when in fact they are merely loitering and playing with friends on the streets (Schak 1972; Malone and Hasluck 2002; Swart-Kruger 2002; Serrano 2015; Arends and Hordijk 2016; Beazley 2016; Agha et al. 2019).

Night and day: The clockwork nature of negative spatial perception

In several studies from our meta-analysis, we identified various references to the temporality of spatial perception, especially the duality of night and day. Young people almost universally perceive space negatively as soon as the sunlight has faded, for they believe that is when dangers begin to loom. Unsurprisingly, gender influences negative perceptions of spaces after dark and, in some meta-analyzed cases, young people perceive spaces negatively not only at night, but also due to other adverse factors such as emissions and a deteriorated built environment.

Young Argentinians growing up during the 2010s in a disadvantaged barrio of the northern city of Neuquén perceived space differently depending on the frequency of use and the time of the day. Consequently, the same space could be subject to opposite (and even mutually exclusive) perceptions. For instance, it was widely known that the main road used by almost all of the interviewees to walk home from school should not be visited late at night (Jaramillo 2011). Furthermore, the negative spatial perception young people have of certain spaces at night may spread to the rest of their neighborhood. For example, young Johannesburgers living in the squatter camp of Canaansland listed a series of fearful instances (both real and imagined) that resulted in the inhabitants feeling unsafe at night in general:

> The lack of outside lighting created pools of darkness between shacks at night and made it impossible to identify people passing by. This alone was enough to scare the children, who said that criminals fled into the camp when they were being pursued by the police. They feared attack when fetching

> water in the dark, or were afraid that flimsy shack walls might be breached by robbers.
>
> (Swart-Kruger 2002: 119)

Adult behavior also added to these young people's negative spatial perception because

> nocturnal activities of the adult residents also concerned and frightened them. In one group discussion a passionate wish was voiced: 'We would like the people of Kanana to sleep at night, not go about stealing each other's property and not walking around and shouting and fighting with each other.'
>
> (Swart-Kruger 2002: 119)

A similar plea was made by a young girl from the suburban neighborhood of Braybrook, Melbourne, where

> [o]ne in every 10 girls stated that everywhere in the neighborhood was dangerous: 'Everywhere is dangerous especially at night – I can hear the drunk people yelling and that up at the flats when I'm in bed and I get scared' (13 year old girl, 1997).
>
> (Malone and Hasluck 2002: 91)

It is noteworthy that young people of all genders may expand their negative spatial perception to their entire living environments—a South African squatter camp and an Australian suburban neighborhood in these two cases—irrespective of their physical characteristics, which should objectively make a difference. And yet, the porosity, and thus vulnerability, experienced in a shack is virtually the same as in a suburban single-family house made of brick and mortar because it is the temporality of the negative spatial perception that tips the scales in both cases.

Young people may also ascribe a different, if not entirely opposite, meaning and sentiment to the physical characteristics of their built environment. Children from five neighborhoods in mid-1990s Los Angeles, which they deemed to be generally unsafe, said they were not "concerned with the aesthetics or symbolism of a fortified neighborhood, but instead feel reassured by window bars and other residential fortifications" (Buss 1995: 346). Oddly enough, neither Indonesian children living in a high-rise enclosed community (Agha et al. 2019) nor expat youths whose families lived in gated compounds in Shanghai (Sander 2016) regarded the larger landscape in which the multistorey building and gated community were immersed as insecure. Instead, they felt a strong sense of protection based on the physical characteristics (and symbolism) of walls and fences (although for young expats, constantly feeling walled in eventually evolved into an asphyxiating environment from which they needed to escape).

When it comes to gender, nighttime spatial practices and perceptions can differ greatly. Young women in Lusaka, Zambia, were hardly ever outside at night

for safety reasons. Among young Zambian men, interestingly, the situation has an internal divide: While some intentionally avoided bars and clubs (to the point of altering their usual routes), for they associated such spaces with negative actions such as drinking and getting involved with girls, others from both low- and middle-income neighborhoods regularly visited nightclubs or bars at night (Gough 2008). In this case, gender and socioeconomic background (coupled with morality) intersect in young people's slightly negative (or positive) spatial perception. Unlike their Zambian counterparts, Armenian girls in Krasnodar, Russia, flatly rejected going out as opposed to young men (and despite being a member of an ethnic minority), for they considered such behavior inappropriate, presumably conforming to cultural mandates (Ziemer 2011). Although not explicitly stated in the study, it is quite likely that these young Armenians' reluctance to be in public had to do with avoiding sexual harassment, an unpleasant experience with which teenage girls from the barrio Besós-Maresme in Barcelona were also confronted. Specifically, they

> feel very much observed in public space. They are well aware that their bodies are considered a sexual object and the discomfort, insecurity or fear that such alienating perception causes them impinges restrictive effects on their everyday use of space.
>
> (Ortiz et al. 2014: 53)

Furthermore, this denotes the deep extent to which patriarchal structures influenced these adolescents' perceptions and uses of public spaces. As one interviewee put it: "'Depending on the time of the day. If it is night-time or if there is a narrower street where nobody walks by and is darker, then I do decide not to go on and even turn around' (Mónica)" (Ortiz et al. 2014: 53). This young Barcelonian's statement demonstrates that negative spatial perceptions are connected to both physical (darkness, narrowness) and use-related (desolate) circumstances. On the other hand, we also came across evidence in our sample of young people—regardless of gender, but not of social class and age—having a positive association with nighttime after having discovered the uninhibited leisure of nightlife (Díaz-Rodríguez et al. 2015; Sander 2016).

Overall, the range of factors underlying young people's negative spatial perception (emissions, deterioration, poor maintenance, disagreeable social conditions, traffic, and nighttime) reveals perceptions of insecurity. Additionally, parents and the media significantly influence young people's spatial perceptions and feelings of insecurity, an issue we return to later in this chapter. Hand in hand with the negative perception of spaces, we also identified a variety of coping strategies and tactics (see Chapter 7) employed by young people: forming groups (Van Staden 1984; Malone and Hasluck 2002; Ziemer 2011; Serrano 2015; Arends and Hordijk 2016), avoiding spaces and being constantly on the move (Matthews et al. 2000; Zylicz 2002; Ortiz et al. 2014), claiming and appropriating micro spaces as their hideouts (Buss 1995; Bannerjee and Driskell 2002; Swart-Kruger 2002; Cummins 2009), or simply choosing to stay home (Berg and Medrich 1980; Buss 1995; Punch 2000; Bannerjee and Driskell 2002; Malone and Hasluck 2002; Swart-Kruger 2002;

Cummins 2009; Carroll et al. 2015; Arends and Hordijk 2016). This last coping mechanism, withdrawing to their homes, has also been noticeably impacted by an increased consumption of television and, more recently, the use of digital devices (Malone and Hasluck 2002; Carroll et al. 2015; Serrano 2015; Arends and Hordijk 2016), which serve as a gateway to the outside world from the comfort and safety of the home. In the following section, we discuss how the embodied experience of space, and its impact on the production and acquisition of spatial knowledge (see Chapter 6), is mediated by this influx of technology.

Transactional and imaginative perceptions of space: The basis of embodied-experienced, mediated, and prospective spatial knowledge

Young people's spatial perceptions are prominently based on embodied-experienced and direct transactions with specific spaces and spatial features. However, spatial perceptions actually do not just result from direct, embodied-experienced interactions, but also from (technologically) mediated interactions with spaces. Accordingly, young people produce embodied-experienced and acquire mediated stocks of spatial knowledge. *Embodied-experienced spatial knowledge* refers to all kinds of corporal, physical, and sensorial examinations, understandings, and internalizations of the (natural/built) environment without virtually any intermediary factors. In this regard, spatial knowledge, as an embodied-experienced interaction, is empirically problematized and interpreted indirectly, if not implicitly, in the sampled studies. Nevertheless, studies whose analytical focus is on the everyday practices and routines of young people illustrate that they combine and make use of various types of spatial knowledge. Hence, rather than clear-cut instances of either producing embodied-experienced or acquiring mediated stocks of spatial knowledge, our findings are indicative of organic and overlapping combinations of both (see Chapter 6).

Against this backdrop, we found that young people perceive spaces more prominently from a *here-and-now* standpoint under certain spatiotemporal circumstances that determine the production or acquisition of spatial knowledge. From this point of reference, young people perceive, assimilate, and internalize physical transformations—major changes in the built environment such as large-scale demolitions, new buildings, and redesigns—through embodied-experienced spatial knowledge. Moreover, young people locate turning points and establish distinctive before-and-after comparisons in their spatial perceptions within their environmental preferences. Likewise, there is a set of studies in which young people's embodied-experienced spatial knowledge reflects quite variegated spatial and cultural patterns in their everyday lives. For example, by growing up in a translocal setting—be it across different countries, moving from a rural to an urban setting, or traveling—young people experience unique and contrasting circumstances compared with their much less mobile (and for the most part underprivileged) counterparts. Therefore, their spatial perceptions and environmental assessments are largely permeated by a constant *here-and-there*. In addition, it is not possible to differentiate clearly between these three forms of comparative embodied-experienced spatial (and temporal) perception of before-and-after and here-and-there.

With regard to other sources and instances of producing or acquiring spatial knowledge, *mediated spatial knowledge* sums up all spatial knowledge that is acquired, rather than produced, by any means other than direct sensory and embodied-experienced action. Based on our meta-analyzed studies, mediated spatial knowledge has gained momentum due to the increasing amount of time young people spend watching television, videos, and clips, listening to the radio, using social media, playing video games, etc. Adults' (notably parents') narratives, print media, and of course school education are all influential intermediary factors as well (see Chapters 6 and 7). Below we discuss the impact of mediated spatial knowledge on young people's spatial perception. By and large, we contend that sources of information and different media have become more present, especially over the last twenty years. Thus, they have played an increasingly influential role in both spatial perceptions and conceptions of future spaces, which we refer to as prospective spatial knowledge (see Figure 5.1 and Box 5.1).

Perceiving and contrasting spatial change: Embodied-experienced spatial knowledge

Our findings show that young people's spatial perceptions are largely, though not exclusively, influenced by and thus closely connected to embodied-experienced spatial knowledge. This knowledge is produced by a wide array of (daily) instances, such as meeting and interacting with peers in person, facing annoying traffic, or witnessing people fighting. In addition, several of the meta-analyzed studies illustrate how young people's spatial perception is also founded on consciously comparing changes in the built environment and contrasting (urban, suburban, and rural) spatial settings they have experienced first-hand. It can be assumed that those experiences of space and time, traversed by different contextual geographic circumstances, not only sharpen young people's spatial perception to some extent but also add a biographical component to their spatial knowledge upon which they can reflect and thus establish turning points in their spatial perceptions. The caveat is that it is not clear whether this reflection is always present and/or also fueled by

Box 5.1: Types of spatial knowledge elaborated from the meta-interpretation

Embodied-experienced spatial knowledge: refers to any corporal, physical, and sensorial examinations, understandings, and internalizations of the built environment without (virtually) any intermediary factor.

Mediated spatial knowledge: includes all knowledge acquired by any means other than direct sensory and embodied experiences and actions.

Prospective spatial knowledge: refers to all conceptions of future spaces.

Source: Own elaboration.

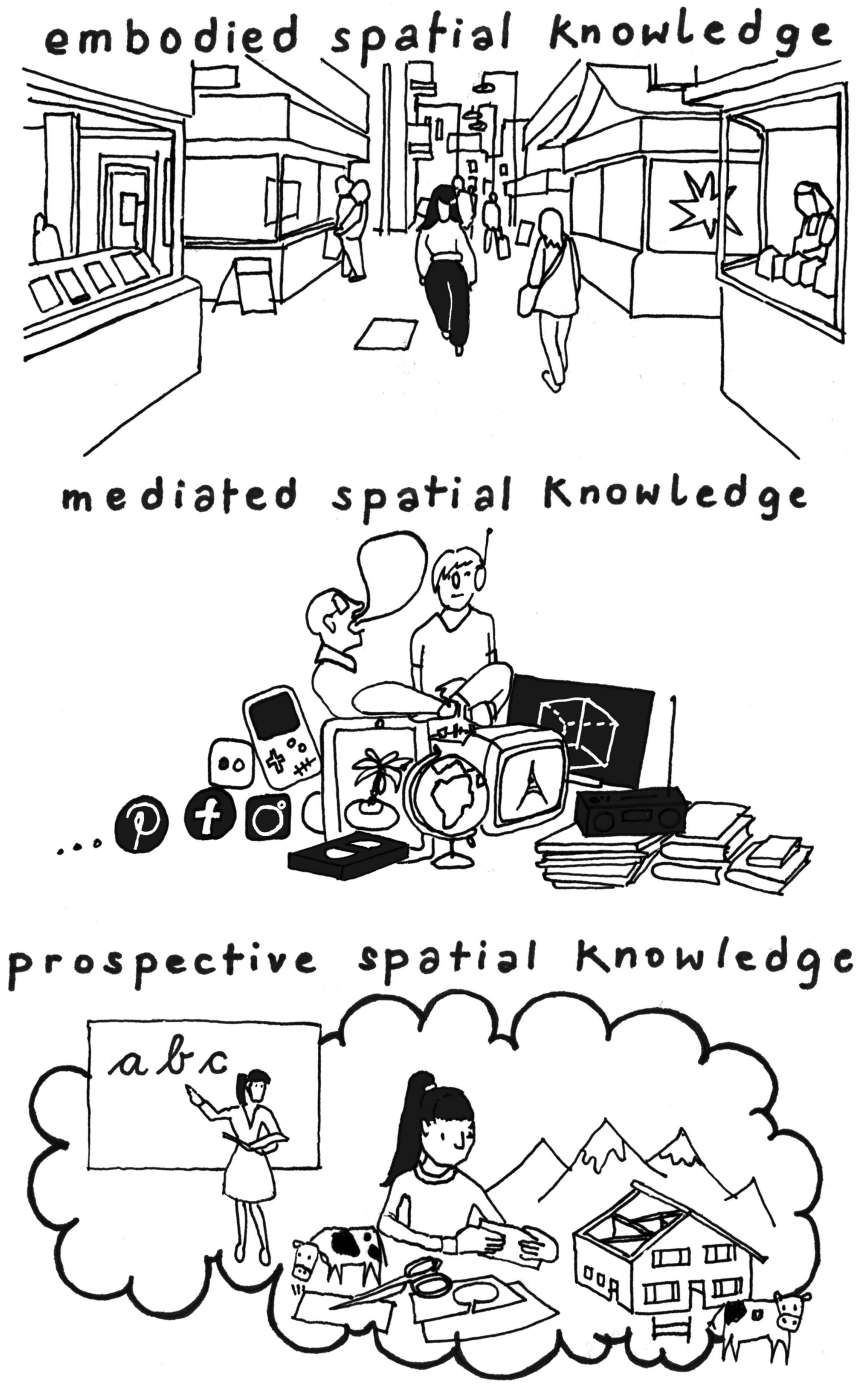

Figure 5.1 Types of spatial knowledge elaborated from the meta-interpretation. Graphic: Grit Koalick, visuranto.de, based on own elaboration.

the respective researchers' questions. Furthermore, while analyzing and synthetizing the sampled studies (see Chapter 3), we were confronted with the interpretative challenge of distinguishing between comparisons provided by the researchers and those described by the researched young people themselves in the selected case studies.

Experiencing before-and-after: Young people perceive physical alterations in their immediate surroundings and use them as a basis to mark turning points in their spatial perceptions. We identified this ability among young people who grew up during the 1970s in diverse geographic contexts—Cracow and Warsaw (Poland), Melbourne (Australia), Salta (Argentina), and Toluca (Mexico)—and saw their (natural/built) environment undergo changes brought about by rapid urban growth, which entailed both improvements and deteriorations (Lynch 1977). Specifically, post-World War II housing provision programs signified a radical change in young Poles' everyday living conditions in both Cracow and Warsaw, for new housing complexes were primarily intended to relieve crowdedness. Compared to pre-war cramped apartment buildings, this must have drastically changed young people's spatial knowledge. In addition, these complexes were located on the outskirts of both cities and only accessible by public transportation, which meant that these young Cracovians and Varsovians found themselves rather isolated and were forced to travel greater distances to access city center amenities (Lynch 1977). Thus, we see their use and perception of spaces being changed and embedded in a before-and-after and also here-and-there comparison.

A few decades later, a follow-up study was carried out on young Varsovians living in the same neighborhood during the 1970s (Lynch 1977), where they witnessed the end of the Cold War and its ensuing transition from a communist to a capitalist system. When asked about their perception of (spatial) changes in their neighborhood, the interviewees clearly based their answers on this historical juncture (Zylicz 2002). Because the vast majority of them could "observe rapid economic and social changes taking place around them: emerging wealth, unemployment (a previously unknown condition), widespread crime, many tempting, newly available (yet often inaccessible) products, and the restoration of democracy" (Zylicz 2002: 203), these young Varsovians exhibited the ability to tell apart change for the better and change for the worst (with some nuances in between) and to distinguish who is better off and worse off in the midst of (material, socioeconomic, and environmental) change. In addition, these young people's spatial perception of (broad and specific) changes—from particular physical modifications (such as the installation of poles and fences in public spaces) to polluting dynamics (e.g., air contamination due to an increase of car traffic) and even socioeconomic distress—appear to have had an impact on their embodied-experienced spatial knowledge.

Moreover, spatial transformations can make the future uncertain for young people. For Melburnians living in the suburban neighborhood of Braybrook and who, like the Varsovians, were part of a follow-up research project some twenty years later, constant and sudden large-scale physical urban transformations seem

to have produced a break in their embodied-experienced spatial knowledge of their neighborhood:

> The advent of new medium density housing replacing the abandoned factories and houses, the projected doubling of the population due to this new housing, and the development of a large shopping complex on the estate's perimeter may be some of the reasons why many young people in Braybrook felt unsure of the future.
>
> (Malone and Hasluck 2002: 92)

However, the neighborhood transformation also provoked mixed perceptions amid the young residents: "Many others […] expressed the view that any changes in the historically stagnant and neglected environment would be an improvement" (Malone and Hasluck 2002: 92). Based on these two cases, we believe young people are capable of using their acute spatial perceptions to consider and reconsider the affordances they have at hand according to their evaluation of shifting circumstances in the natural and built environment. It is also interesting to note how young people can use their mutable relationship with their everyday environments to determine whether changes have occurred for better or worse based on the availability of affordances. In turn, this may result in adaptive behavior to make up for lost affordances by making the most of new affordances. The positive perception young people have of conspicuous physical transformations is demonstrated by the teenagers living in the Besós-Maresme barrio of Barcelona at the beginning of the 2010s, for whom a series of urban renewal projects implemented throughout the city in the previous decade signified a turning point in their spatial perception of, feelings about, and (spatial) practices in their neighborhood (Ortiz et al. 2014). Furthermore, the interviewees expressed a generally positive evaluation of the changes produced in the built environment of the barrio, for it had fostered their sense of belonging and identity (see Chapter 6). These teenagers also acknowledged that "their spatial practices as well as their opportunities have increased due to the urban renewals and upturn of new spaces in their barrios and adjacent environments" (Ortiz et al. 2014: 52).

Although these young Barcelonians strongly approved the physical changes in their built environment, which gave way to a sense of belonging and identity—and thus social inclusion, for their neighborhood had been historically underprivileged—spatial transformations may also be perceived differently and represent the reproduction of social exclusion. That was precisely the case for the young people from the Canaansland squatter camp in Johannesburg, South Africa, who were evicted suddenly and saw their camp torn down (Swart-Kruger 2002). While these young people were already uncomfortable living there due to the inadequate conditions and blatant discrimination and hostility and saw themselves somewhere else in the long run, the traumatic experience of a violent eviction arguably marked an inflection point in their embodied-experienced spatial knowledge. This applied to not only their feelings about the camp but also the uncertainties that accompany such an abrupt relocation, not to mention the control they may have come

to believe they had over their future. In addition to witnessing the physical and symbolic disappearance of their camp as they knew it and experiencing disempowerment to the fullest, these young Johannesburgers suddenly had to relocate. The ups and downs of this experience would ultimately impact their embodied-experienced spatial knowledge. Furthermore, since they were relocated to the outskirts of the city, their production of embodied-experienced spatial knowledge was filled with different spatial coordinates, which were nevertheless impregnated with an (uncannily familiar) disenchantment, impotence, and frustration. In other words, the everyday lives of these young people in the aftermath of the eviction began to resonate with the issues they frequently experienced in the former Canaansland squatter camp. Thus, their embodied-experienced spatial knowledge may have been reproduced in the end with before and after becoming one and the same.

Living here-and-there: The spatial perception of young people is both impacted by and connected to embodied-experienced spatial knowledge, which they produce through direct interaction with manifold spaces—be it those located in their neighborhoods, along their daily walks, routes back and forth to school, elsewhere in their cities and countries, or abroad (which they can also access, in an indirect and mediated fashion, by watching television and surfing the Internet). Several of the meta-analyzed studies illustrate that starkly contrasting spaces where young people produce embodied-experienced spatial knowledge can sharpen their spatial perception as they start drawing parallels between here and there. This comparison-based spatial perception is perceptible in several of the sampled studies in which researched young people, in one way or another, are examined through differences between urban and rural settings (Punch 2000; Cummins 2009; Khan 2018), urban and suburban life (van Vliet 1981), or even different countries (Hammond 2003; Tse and Waters 2013; Carroll et al. 2015; Sander 2016). Unlike the previous section, in which we primarily stressed how young people's spatial perception is driven by a before-and-after comparison triggered by physical changes in their neighborhoods and cities, we noticed that young people in the various studies above can discern the colorful array of aspects that characterize the various geographic contexts, urban and rural settings, and socio-spatial realities they have experienced and aligned by means of a here-and-there comparison. Accordingly, while some of these meta-analyzed case studies explicitly include these comparisons in their research designs and/or stress them in their interpretative analyses (van Vliet 1981; Katz 2004), other studies clearly show that young people themselves draw on here-and-there contrasts to describe spatial preferences based on, for example, their own biographical experiences of migration (Hammond 2003; Cummins 2009; Tse and Waters 2013; Sander 2016; Khan 2018; Million et al. 2019), journeys motivated by education from going back and forth between home and school daily to spending years in another city, region, or country (Cummins 2009; Tse and Waters 2013; Khan 2018), and travels (van Vliet 1981; Cummins 2009; Million et al. 2019).

Expat (mostly German) teenagers who grew up in gated compounds in Shanghai at the end of the 2000s and beginning of the 2010s (Sander 2016) and young Hongkongers sent to Toronto, Canada, to study via transnational family arrangements during the 2000s (Tse and Waters 2013) are prime examples of what it

means to grow up translocally. In both cases, it becomes quite apparent that being immersed in a different geographic context and having to come to terms with its social and cultural codes affect young people's spatial affection and disaffection. Interviewed young Germans constantly compared their preferred and frequented spaces in Shanghai with spaces in their hometowns by likening and emphasizing comparable affordances, such as the description of a nearby convenience store used as a hang-out and mentioned in reference to the positive perception of spaces of consumption. This shop afforded the young people a certain degree of freedom to interact with peers outside the gaze and control of adults: a condition of paramount importance not only to these interviewees but also arguably to young people in general. One of the boys compared the shop "to a park or what a bus stop or a playground is for youths in Germany" (Sander 2016: 242). In addition, the teenagers in this study also reflected, somewhat paradoxically, on safety issues and the physical and emotional aspects of their living situation. For some, the constant presence of guards and the visual effect and sentiment of enclosure in the gated communities were determinants of safety. As

> [o]ne girl contemplates: I feel safer if there is a fence around it and if there are guards standing and running around, in the night. But in Germany [where her house is not in a compound] nothing happens either (German, female, 15).
>
> (Sander 2016: 241)

The interviewee combined her "imaginary" (Sander 2016: 241) space with a different (incongruent) cultural and social space.

That being said, these young Germans seem to have produced embodied-experienced spatial knowledge that not only indicates categorical distinctions between here (a convenience store in Shanghai) and there (a park or a bus stop in Germany) but also responds to somewhat contradictory and overlapping contrasts regarding the perception of (in)security between here (a gated compound in Shanghai) and there (an unguarded neighborhood in Germany). Similar to the young German expats who grew up in Shanghai due to the relocation of their families, young Hongkongers experienced a transnational migration during the 2000s but at an individual level because they were sent to Vancouver on their own to study (Tse and Waters 2013). Just like the German expats (in a more spatial sense) and Varsovians (in a more spatio-temporal manner), these Hongkongers progressively started to make comparisons between their new here (Vancouver) and their old there (Hong Kong), highlighting both peaks and valleys. Interestingly, positive aspects of their new here and negative aspects of their old there emerged simultaneously. Consequently, while interviewees initially said that they missed their hometowns after moving, they eventually grew accustomed to and even embraced their new spatial settings, experiencing a "change in the geography of affections" (Tse and Waters 2013: 543). Thus, growing up translocally conflates various points of reference, which in turn allows young people to (re)evaluate both known and unknown spaces and strongly influences the perception of spaces founded on here-and-there assessments. Accordingly, the young Hongkongers gradually developed an affinity for

and emotional attachment to new spaces and simultaneously detached themselves from their transnational families and eventually expressed "individuated spatial sensibilities that signal a successful transition from childhood to young adulthood" (Tse and Waters 2013: 543). This transition from one stage of life to the next represents a *spatial (re)anchoring-belonging* (see Chapter 6) in that the youths were able to ascribe (new) meaning to their new here and old there and develop a sense of belonging and identification in their new socio-spatial environment.

We identified another case of spatial (re)anchoring among young Ethiopians of varied ages from the Tigray region whose families were displaced and settled in a refugee camp in Sudan and then relocated to the returnee settlement of Ada Bai, Ethiopia (Hammond 2003). Although the parents attempted to transmit a sense of their original home, namely, the Ethiopian highland, to their children by teaching them songs and passing on traditions, these young Ethiopians never completely anchored their sentiment of belonging and identity in a single spatial reference (as their parents intended). Instead, they developed a "sort of bilateral construction of home" (Hammond 2003: 92) suspended between an everyday and present here (first the camp and then the settlement) and a remembered (through songs and traditions) and faraway there (the highlands). From the German expats to the Ethiopian refugees, these sharply contrasting cases show that the young people's spatial perception can contain convoluted here-and-there and before-and-after comparations when they grow up under translocal spatio-temporal circumstances. A spatial (re)anchoring is integral to this spatial perception as it resonates with the acceptance and accompanying challenges of both gradual and sudden change—be it in the built environment or due to relocation—which prompts comparisons between different times and spaces. While our findings chiefly pertain to young people who were entering the threshold of adulthood and had spent considerable amounts of times in different countries (save for the young Varsovians, who were visited by other countries, so to speak), we also found traces of comparative spatial perceptions based on short-term transnational experiences. New migrant children in New Zealand, for instance, underscored the recurrent issue of (in)security when comparing their former living environment with their new neighborhood: "Notably, some who had previously lived in large Asian cities commented on how much safer they felt in inner-city Auckland" (Carroll et al. 2015: 10). Moreover, young Germans and Austrians whose socioeconomic background allowed them to either live or travel abroad for extended periods of time (visits to relatives abroad, family vacations, or intercultural exchange programs) clearly incorporated such transnational experiences into their spatial perception as opposed to their peers whose socioeconomic situation did not permit such an experience (Million et al. 2019). A young German girl, recalling her experience in New Zealand, underscored differences she spotted around the school she attended there: "[T]hey use their space completely differently than we do […], there the classrooms are designed according to the subject being taught" (Million et al. 2019: 153).

As we have previously contended, young people may also draw here-and-there and before-and-after parallels with regard to the nature of their everyday spatial settings: rural, suburban, and urban (van Vliet 1981; Talen and Coffindaffer 1999; Katz 2004). A few of the sampled cases show that young people and parents alike

often turn to such comparisons to express their preferences and aversions (Punch 2000; Bannerjee and Driskell 2002; Cummins 2009). Rural children in Canada's Southwestern Ontario, for example, stressed the spatial qualities of the farms where they lived, such as the quantity, size, location, and quality of available spaces that suited their spatial practices of play. In order to accentuate this positive spatial perception, the children pointed out sharp contrasts to urban settings: "In the city there are too many cars and all that. And it is loud in the city and I don't like it loud (Male, 7 years)" (Cummins 2009: 73). While these children were aware of the "extensive space of play" (Cummins 2009: 76) available and cherished it by comparing it with an urban reality they openly disliked and with which they rarely had contact, Bolivian children found themselves in the reverse situation, for their families had moved away from the small village of Churquiales to the big city, where they were confronted with an urban setting that proved challenging for them to accept. As one of the interviewed parents put it,

> At the beginning, the children could not get used to being enclosed. Here it is enclosed because of our fear of the cars. The children were sad for about two months, they used to lie down and peer out under the gate.
>
> (Punch 2000: 53–54)

Chances are that these children eventually managed to overcome the inertia of their new here (urban setting) and settled in (as in the case of the young Ethiopians and Hongkongers), while still remembering their past lives in their old there (the hinterland).

Another element at play in the here-and-there comparison of young people's spatial perception is their imagination. This was illustrated by young New Englanders growing up in the small town of Inavale during the late 1970s and early 1980s and for whom appealing spaces were located beyond their immediate spatial range and realm of direct experience without any form of hierarchical organization. Using their imagination, these young US-Americans relativized here-and-there comparisons rather than drawing on facts and intuitively established connections between geographic spatial references near and far away from their everyday reality (see Chapter 6): for example, "based on transport mode: California [for these young US-Americans] is farther away than Boston because you fly there" (Hart 1981: 228). The following general statement applied:

> Combined with this lack of knowledge and interest in the relative location of places, there was a complete lack of differentiation between towns, cities, states, and countries: All were places 'out there', though sometimes, especially when children had visited a place, they would have some idea of which direction it was; usually a place lay in the direction that their car left town.
>
> (Hart 1981: 228)

As a whole, young people perceive spaces through (occasionally overlapping) comparisons in both space (here-and-there) and time (before-and-after), which adds a degree of complexity to their production of embodied-experienced spatial

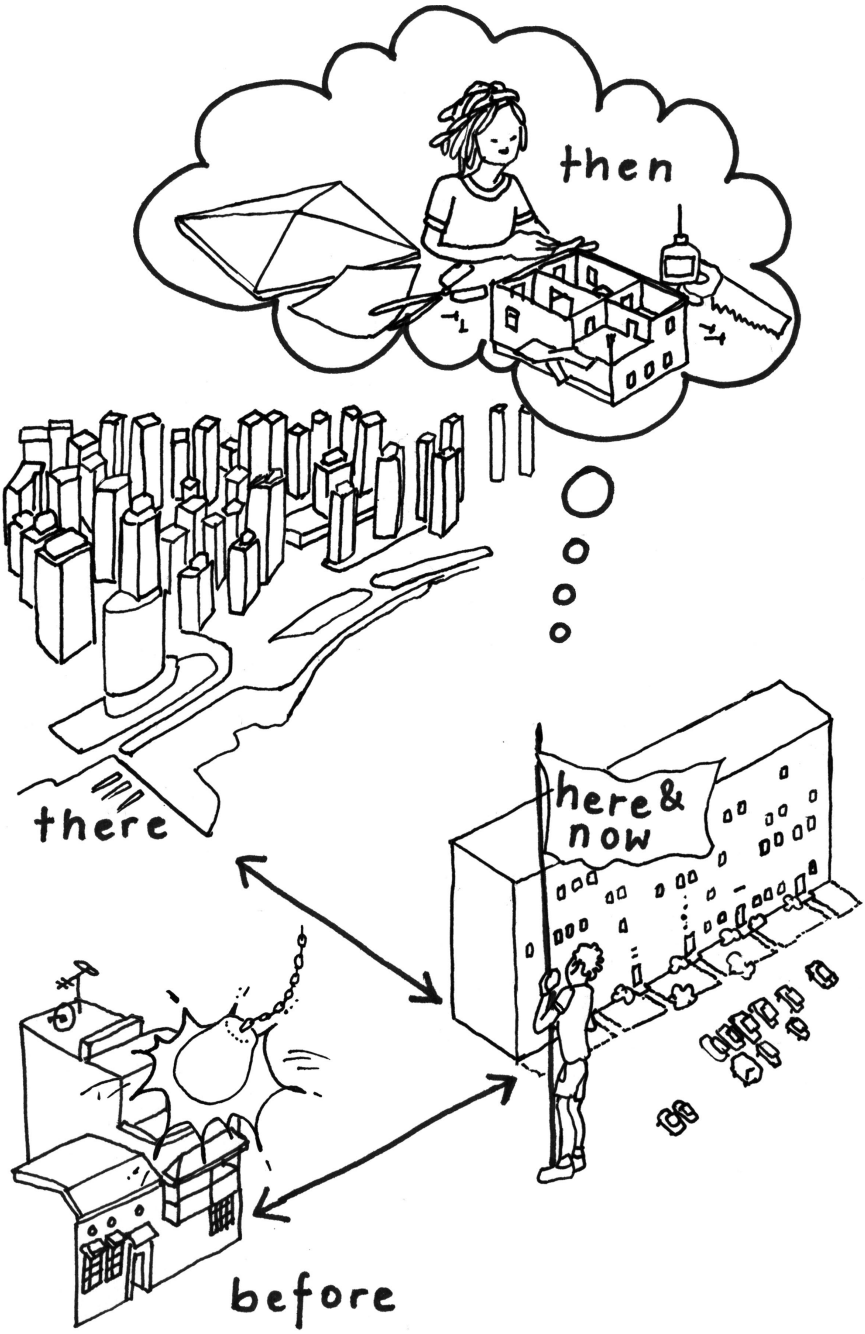

Figure 5.2 Young people's spatial perception influenced by comparisons in space (*here-and-there*) and time (*before-and-after*). Graphic: Grit Koalick, visuranto.de, based on own elaboration.

knowledge (see Figure 5.2). As our meta-analysis shows, this phenomenon can be found in studies conducted during the 1970s and onward, with Kevin Lynch's seminal *Growing Up in Cities* (1977) marking the starting point. Gradually, studies on childhood and adolescence have broadened their purviews to include the reality of both privileged (as in the case of German expats in Shanghai) and marginalized (such as the displaced Ethiopian refugees) young people. Moreover, the variety of comparisons that intersect with young people's spatial perception is proof of the growing influence of accelerated urbanization processes, particularly the spatial transformations and unwanted consequences they bring about. Thus, the spatial perceptions of young people growing up and living translocally in contrasting scattered spaces reflect ample physical mobility (leisure traveling), social mobility (studying abroad), and even extreme disenfranchisement (displacement). As studies outside of our meta-analysis show, these three trends are connected to the 1970s tourism boom (Treadwell 2001), increasing opportunities to study overseas (Banks and Bhandari 2012), and the worrying increase in international refugees and asylum seekers (half of them being young people; UNICEF 2020), respectively. Together with the imprint a translocal life leaves on young people's spatial perception and thus their production of embodied-experienced spatial knowledge, mediated flows of information are fed into and increasingly shape young people's everyday lives, forming the basis of the mediated acquisition of spatial knowledge (see Chapter 6). Next, we delve into the impact mediation has on young people's spatial perception.

The spatial perception of mediated inputs: Mediated spatial knowledge

The spatial perception of young people is influenced not only by the production of embodied-experienced spatial knowledge, but also by the acquisition of mediated spatial knowledge. We identified in our sample a range of methods by which young people acquire spatial knowledge through various forms of mediation and how this impacts their spatial perception. Furthermore, there are multiple factors that encase spatial knowledge in relatively structured and definitive patterns: the role of parents (see Chapter 7), educational institutions (see Chapter 6), and consumption of and interaction with the media (books, television, Internet, etc.). In the following section, we emphasize the effect of both new media—which is based on computer technology and has led to a staggering mediatization (see Chapter 3) of young people's everyday lives (see Chapter 4)—and old media—such as television, films, and books—on young people's spatial perception. By and large, with the advent of the information age and the sudden evolution of and widespread access to information and communication technology, the acquisition of mediated spatial knowledge has become noticeably digitally mediatized, especially due to our reliance on digital devices for its distribution. As such, the media have increasingly shaped not only how young people perceive spaces in the present, but also how they conceive the future (a subject we explore in the next subsection).

Mediating fear and spreading spatial discomfort: Our findings show that one effect media have on young people's spatial perception is to cause a constant sense of insecurity, which we argue leads to the spatialization of unsafety (for instance,

when spaces are stigmatized as insecure and therefore completely avoided). A prominent example of media-driven fear that we repeatedly identified throughput our sample is the notion of stranger danger, especially kidnapping. The possibility of being abducted—either under particular circumstances or anywhere at any time—appears prominently in studies carried out over the last decade in geographic contexts of both the Global South (Gülgönen and Corona 2015; Serrano 2015) and the Global North (Salvadori 2002; Carroll et al. 2015) (see also Chapter 7). For example, the aforementioned study on children from La Paz, Bolivia, who attended a school downtown (Serrano 2015) demonstrates that the abduction, robbery, and assault imagery of these young Bolivians was not based on actual experiences, but rather was

> built upon the image and narrative projected by the media. The insecurity is [thus] related to the night and unknown spaces, 'where I live, but further back, there is not much street lighting and I think that, there, people are mugged' (Itzel 11 years old […]).
>
> (Serrano 2015: 15)

As a result, in order to avoid being potentially kidnapped, mugged, or attacked, children preferred to stay home and only went out if accompanied by adults (though their fear of abduction in particular did not vanish completely). A similar sentiment permeated the narratives of young Aucklanders, whose decision not to go anywhere without a parent or older sibling was reinforced by the media:

> 'I got frightened when I heard on the news […] like a few nights before I was asking my mum if I could walk but then when I heard, I went into the living room and there on the TV […was] the news and it was like two children got lost, like kidnapped. So watching that made me kind of think that maybe going with my mum is better'.
>
> (Carroll et al. 2015: 10)

Consequently, and similar to the behavior of their Bolivian counterparts, "[b]oth parents' fears for their children's safety and their children's internalized anxieties meant many children seldom ventured beyond the confines of home, school, and the houses of friends and family" (Carroll et al. 2015: 10). This strategy of always being accompanied and sticking to familiar safe spaces to quiet fears, though somewhat more intense, was discernible among children in Mexico City who refused altogether to be alone in public spaces because they were constantly "afraid of being kidnapped or assaulted, and generally feel threatened by strangers" (Gülgönen and Corona 2015: 216).

We also found that in addition to the media, parental narratives and thus their own anxiety and prejudice reinforce the production and propagation of mediated ghost stories since spaces labeled as insecure by young people and parents frequently coincide (Bannerjee and Driskell 2002; Malone and Hasluck 2002). Accordingly, the home-retreat tactic used by parents to keep their children out

of the streets as much as possible (see Chapter 7) correlates with an increase in domestic activities and chores (affecting young girls significantly more than boys) and widespread access to and increased use of new media (Malone and Hasluck 2002; Carroll et al. 2015; Serrano 2015; Arends and Hordijk 2016). Overall, we see a marked shift in how young people perceive and judge the affordances of their preferred (physical) spaces toward the home as the space for socialization and play par excellence (though not the only one by far).

Young people's hybrid spatial perception and practices driven by old and new media: The amount of time spent by young people doing indoor media-consuming activities in comparison with time spent playing outdoors has been steadily rising since the boom of television as a mass medium after World War II. Within our sample, a pioneering study on how adolescents growing up in various geographic contexts around the world during the 1970s perceived and used their environments (Lynch 1977) indicates the presence of television sets in both urban (e.g., the city of Salta, Argentina) and rural (e.g., the Polish village of Bystra Podhalanska) households, although it does not discuss the far-reaching implications. In various meta-analyzed studies, we identified varying speeds and degrees of accessibility to old (almost exclusively television and to a lesser extent radio) and new (mainly computers) forms of media consumption and the associated impacts on young people's spatial perceptions and practices across different geographic contexts over the past several decades. In the Global North, for example, German children spent at least as much time watching television in their homes as playing outside during the early 1980s (Apel et al. 1985), while nearly two decades later in the Global South, young inhabitants of the self-built settlement of Sathyanagar, Bangalore, could only watch their favorite television shows at their neighbors and had little time available for play or leisure activities in general (Bannerjee and Driskell 2002).

Under other circumstances, young people's practices of play reveal the acquisition and active incorporation of mediated spatial knowledge through vintage media such as books, television, and billboards (Talen and Coffindaffer 1999; Zylicz 2002; Agha et al. 2019). Specifically, the spatial practices of Malaysian children living in a high-rise community at the beginning of the 2010s show the influence of consumerism in not only micro-cultural appropriations but also explicit allusions to transnational brands:

> [G]irl participants below the ages of 10 often played the game of '*tumbuk-tumbuk bunga*' which means 'the pounding of flowers' and then they pretended to prepare and eat them as though it were 'sushi'; while boys' football play was associated with commercial brand names such as Manchester United, Nike and Adidas.
>
> (Agha et al. 2019: 701; italics in the original)

New media not only enable global culture to permeate and thus influence local spatial practices of play (like those of the Malaysian children above), but also may even provide opportunities for adventures that young people formerly associated with outdoor spaces. For instance, a study on children from six neighborhoods in

Auckland, New Zealand, points out, "To explore and have an adventure was, for some, an indoor [home] and virtual experience" (Carroll et al. 2015: 15). We would argue that this constitutes a striking example of how the consumption of media can turn young people's spatial perception and practices from outside to inside, which increases the significance of mediated spatial knowledge. Furthermore, this shift seems to be twofold in that young people's acquisition of spatial knowledge while indoors does not involve physical space but rather virtual space.

In some of the case studies from our sample, one outcome of this transition is that the acquisition of mediated spatial knowledge triggered spatialities of affection among young people who interacted virtually with foreign (notably US-American) cultures at the turn of the 21st century. A case in point is young Britons who experienced the Internet as an Americanized space during the 1990s, allowing them to stay up to date on movies, music, and sports. Thus, virtual spaces became quite valuable for offline relationships with peers, since knowledge acquired online could then "be used to impress friends and thus gain social currency in off-line relationships" (Holloway and Valentine 2001: 157). A similar effect was perceptible among youths studying in rural (Bodenfelde) and urban (Hamburg) Germany at the beginning of the 2010s whose daily spatial practices were visibly shaped by media. Not only did almost all of them have a television and/or computer in their rooms, but their mobile phones were also an integral part of their (daily) activities (Gräbel et al. 2015).

It is interesting to note how much the interplay between the production of embodied-experienced spatial knowledge (based on nearby physical contextual space) and the acquisition of mediated spatial knowledge (via media consumption and virtual spaces) impacts young people's spatial perception (and consequently assessment of spaces). For instance, in the case study on young Melburnians from the suburban neighborhood of Braybrook, some of the participants were labeled as homebodies for research purposes because they stopped venturing onto the streets and visiting other public spaces and gradually withdrew to their homes, where they consumed media via the computer and television (and took care of siblings) (Malone and Hasluck 2002). As a result, these youths gained spatial knowledge of faraway spaces by connecting with globalized communities, interacting with others in chat rooms, and surfing the Internet. This study shows that while these young Australians had little knowledge of their immediate physical surroundings (and thus their production of embodied-experienced spatial knowledge dwindled), they arguably acquired knowledge about distant geographic locations due to the increasing mediatization and translocalization they experienced (see Chapter 2). Hence, both withdrawing to the home and increased mediatization appear to have furthered a change in their spatial knowledge caused by translocalization, leading to an inverse proportionality between their knowledge of nearby and remote spaces. Similar to the Melburnian homebodies back in the 1990s, young people living in Tel Aviv at the beginning of the 2010s showed a lack of attention to and interest in their direct physical (and even social) environment (contextual space) due to their extensive use of smartphones. Yet, unlike the case of their Australian counterparts almost a decade before, they did not refrain from being in public spaces; in fact,

the sense of privacy their digital devices provided them while being there was very much appreciated (Hatuka and Toch 2016). In our view, young people perceive and evaluate spaces more positively, as these two studies indicate, if they have the possibility to consume media and if they are offered affordances that enable them to use their mobile devices. While this meant staying home instead of going outside for the young Australians, the young Israelis were not confronted with such a dilemma thanks to the technological amenities in the public spaces, a precondition that has given rise to a hybridization of young people's everyday spatialities (see Chapter 4).

As conspicuous and abrupt the impact of new media has been on how young people perceive and evaluate spaces, this does not necessarily mean that old media has been completely replaced (or relegated to the background). Quite the contrary, old media such as television, radio, books, and songs still play a role in many of the geographic contexts of our sample. As such, they remain influential in young people's spatial perception (and thus spatial knowledge). Our meta-analysis indicates that adult's (and particularly parents') narratives are important sources for young people's mediated spatial knowledge as they are told about faraway spaces and other ways of living. For example, a longitudinal study on Sudanese children growing up in the rural village of Howa illustrates how much weight parental accounts about the journeys and spaces they encountered carried with their children (Katz 2004). Likewise, the Ethiopian young people whose families were uprooted and taken to a refugee camp and then relocated in the returnee settlement of Ada Bai learned about their homeland through the songs and poetry their parents taught them in the hope that they would create a bond with it (Hammond 2003). In a similar fashion, young Ontarians who grew up on farms became acquainted with specific aspects of their farmlands and thus came to appreciate the heritage that was being passed down to them because of how their parents framed their rural way of life (Cummins 2009). All these examples show that, under certain circumstances, old media can very much be the dominant source of mediated spatial knowledge and therefore underpin how spaces are perceived and valued. However, media consumption seems to be subject to a growing hybridization in general, in which old and new media coexist and intertwine rather than supplanting one another. Furthermore, this phenomenon results from young people spending more time at home and having greater access to mobile devices and a connection to the Internet, which has taken online activities from the private realm of the home (back) to public spaces. Undoubtedly, this has reshaped the everyday lives of those young people who have the privilege of consuming new media and altered both their production of embodied-experienced spatial knowledge and acquisition of mediated spatial knowledge, an impact that is felt not only in the present but may be expected to continue into the future.

Imagining (and spatializing) the future: Prospective spatial knowledge

The prospective character of young people's spatial perception has to do with their ability to envision the future—from concrete proposals to improve their neighborhoods and/or cities to the complex act of projecting themselves into the future (see

Figure 5.1). We argue that this ability gives rise to what we call prospective spatial knowledge, which can be found in two main situations across the meta-analyzed studies: when young people are asked about their future lives (e.g., whether they picture themselves living where they are or elsewhere), what they believe their neighborhood, community, or city should be like in the future. Hence, young people's spatial knowledge becomes prospective as it portrays yet to be realized spatial realities, which entails combining (sometimes critical) assessments of their current conditions and letting their imaginations roam free. Moreover, there are a number of factors related to this capacity to spatially project themselves and their surroundings into the future: experiences of spatial change, family (members), educational opportunities (especially schooling), and, once again, media consumption.

Young people's future spatial aspirations: Young people are quite sensitive to spatial transformations. As such, the physical witnessing and ensuing internalization of (positive or negative) changes in their (natural/built) environment can influence their future ambitions. For instance, the young Bangaloreans living in the self-built settlement of Sathyanagar almost without exception saw themselves staying where they were in the future based on the perception of gradual (spatial) improvements to their living conditions:

> This positive attitude about the future was further reflected in response to the question: Where would you like to live when you're grown up? Nearly all of the children who were interviewed did not hesitate in answering: 'Sathyanagar'.
>
> (Bannerjee and Driskell 2002: 149)

In contrast, after being directly exposed to physical-symbolic traces of social conflict in their built environment, young people become susceptible to worries and thus link such negative aspects to their individual futures. For example, children growing up in five problem-ridden neighborhoods of 1990s Los Angeles were sensitive to physical representations of social conflict and decline. As one interviewee put it: "'Graffiti is bad. I don't think it is right. It is *destroying our city and our future*'" (Buss 1995: 348; italics in the original). Similarly, the Melburnians from the suburb of Braybrook experienced first-hand and fairly pronounced transformations in their neighborhood—specifically, the development of new housing areas and a shopping center—that led to a rift in their spatial knowledge, which in turn rendered their future uncertain (Malone and Hasluck 2002). Hence, changes in the built environment can trigger feelings of uncertainty about the future, from (even subtle) signs of decay (like graffiti) to major alterations (such as new buildings).

Another factor that helps shape the aspirations of young people is the *spatial settings of formal institutional learning processes* (see Chapter 6), namely, the school and what it stands for: a vehicle of social mobility. Our findings encompass a wide and contrasting range of (present) realities and (future) hopes. For example, for the displaced young Ethiopians from the Tigray region, after returning to their homeland and resettling, the establishment of the first elementary school initiated new educational practices and ultimately changed their take on their future despite the continuing

precarious conditions. Moreover, parents played an essential role in this transition as they progressively understood that education could entail upward mobility for their children and thus encouraged them, especially the boys, to continue attending school (Hammond 2003). Similarly, Taiwanese children from middle-class families in 1970s Taipei were encouraged, particularly by their mothers, to both attend school and to organize and maximize their daily school tasks (Schak 1972). These children were therefore heavily invested in their education, for it "is valued not only for its own sake, it being a mark of distinction, but also because it is the only means for most people to obtain or retain high status and high income" (Schak 1972: 201).

Furthermore, non-formal learning processes may substantially impact young people's future aims in addition to comprising a much wider array of spatial settings (compared to school buildings and campuses in formal institutional learning) (see Chapter 6). In the case of rural Ontarian children, the spatiality and dynamics of the farms where they grew up, which we consider spatial settings of non-formal learning, seem to have only partially influenced their future aspirations. While there was a "notable keen desire by both girls and boys to live in rural settings in their future, which suggests that a certain quality of life surrounding rural living is felt and lived by this sample of farm children" (Cummins 2009: 79), most of them did not see themselves following in their parents' footsteps in the long run. Here there was a notable tension between parental expectations of their children's future and what their children actually imagined their future to be. In that regard, it was easier for girls than for boys to free themselves from parental hopes (if not orders) because the boys were expected to carry on the family farming tradition (Cummins 2009). Gender biases and marked differences were also illustrated by suburban US-American children in how they envisioned their ideal neighborhoods. Amid the drawings produced by these children, researchers could observe a "higher incidence of residential land uses among females […], reflecting perhaps a more home-centered view of the environment among girls" (Talen and Coffindaffer 1999: 326). Likewise, gendered futures are also shaped by media images, as demonstrated by the case of Ugandan street children who watched movies in so-called video halls (van Blerk 2006). The content of the different movies these children watched largely influenced their narratives about their (desired) futures: "The action-adventure films illustrate power on the streets and a means for control for the boys while the girls' escapism is based on romantic visions of getting married and leaving the street, so they tend to watch romantic films" (van Blerk 2006: 66). This media influence on future aspirations, coupled with a pronounced consumerist drive, is also perceptible in how young Mexican and Vietnamese immigrants growing up in the Oak Park housing complex during the 1990s described their ideal futures: "[T]hey clearly showed their appreciation of spaces such as malls, entertainment parks and video arcades" (Salvadori 2002: 198). While there might have been other reasons why these youths developed such sentiments, both media and the entertainment industry seem to have played a dominant and vital role, as the "artificial character of these private spaces and the activities they afford often merge with the images of youth in the media and advertisement industries" (Salvadori 2002: 198).

As a whole, young people's ability to imagine and spatialize their futures—that is, their *prospective spatial knowledge*—depends on a range of elements, from experiencing physical changes in their (natural/built) environment and formal institutional or non-formal spatial learning processes to parental decisions and differences based on gender. In addition, though only briefly addressed (in the case of the Ugandan street children), media consumption is a catalyst for young people's prospective spatial knowledge, which we examine in the following section in more detail.

Young people's desired spatial improvements and demands: The young people from various meta-analyzed case studies in our sample were asked about which improvements needed to be implemented in their neighborhoods (or cities). We identified three specific and recurrent suggestions in their responses: (a) more green spaces (Bannerjee and Driskell 2002; Malone 2013; Serrano 2015), (b) less and slower traffic, and (c) a broader sense of community, especially in situations of economic hardship and displacement (Zylicz 2002; Serrano 2015; Burke et al. 2016). Such attitudes and desires can be observed in studies on both the Global South (Lynch 1977; Milstein 2013; Serrano 2015;) and North (Lynch 1977; Zylicz 2002; Burke et al. 2016). Nevertheless, a closer look reveals slight variations in the different geographic contexts. For example, after being asked about possible improvements, Australian children from the small suburb of Dapto, Australia, stressed more nature and wildlife in the future design of spaces and directly addressed the quality (e.g., biodiversity) of green spaces (Malone 2013). These types of concerns might hint at the effects of environmental education (likely part of the school curriculum) on how these children envisioned the future landscape of their neighborhoods. In contrast, young Bangaloreans living under quite different circumstances in the self-built settlement of Sathyanagar vocally expressed their desire for more greenery, or any at all, to be incorporated into public spaces (Bannerjee and Driskell 2002). Unlike the case of the Australian children, this happens to be a quantitative request.

Suggestions and ideas young people have to improve their living environments also have an inherent adult influence when they pertain to (basic) infrastructure, for example, in disadvantaged neighborhoods, such as the provision of drinking water, sewage systems, storm drains, waste management, electricity, and street lighting. Specifically, the young residents of the Canaansland squatter camp in Johannesburg, South Africa (Swart-Kruger 2002), and Dhaka, Bangladesh (Ahmed and Sohail 2008), wanted their camp and neighborhoods to be upgraded and provided with services such as toilets, drinking water, garbage collection, electricity, street lighting, and fencing to keep out strangers and animals. Like these young South Africans and Bangladeshis, youths residing in the self-built settlement of Sathyanagar on the outskirts of Bangalore, India, echoed such grown-up demands but articulated them somewhat more directly:

> tar the road, install a water tap next to each home, clear the garbage, improve the drainage so that rainwater would not overflow into their homes. Not one child asked for a children's park or play equipment, nor did they have fanciful, unattainable visions for the future.
>
> (Bannerjee and Driskell 2002: 148)

Aside from infrastructure-related concerns and far from illusory, young people frequently expressed their need for space of their own. For example, the young Johannesburgers living in the squatter camp "longed for a sheltered place, at a distance from adult interference and noise, where they could do homework, socialise, play and read" (Swart-Kruger 2002: 122). Though more common in studies where young people were living on the fringes of society, this also appeared to be a deep-rooted desire of young people who were better off. For instance, a young Varsovian in the Powisle neighborhood requested a youth-dedicated space like a youth club to overcome the prejudice and marginalization toward young residents (Zylicz 2002).

In addition to demands for infrastructural reform and designated space, the future conceptions young people have of their neighborhoods are also based on safety aspects. Together with the desire for less and safer traffic, young people in geographic contexts of the Global South and Global North alike repeatedly asked for safe(r) playing spaces. For example, when interviewed about their desires, both suburban and inner-city children in Auckland, New Zealand, underscored safety and design-related considerations, such as

> less and slower traffic […] and more pedestrian crossings; more easily accessible outdoor places in which to play (parks, a skate park, playgrounds, better playground equipment); more space in and around apartments in which to play; […] shared leisure facilities,

and generally speaking, "a safer neighborhood, with 'no scary strangers' or 'gangs by the shop'" (Carroll et al. 2015: 14). Along similar lines, children in Mexico City depicted their ideal(ized) vision of the future city in drawings and models as being heavily guarded and containing "a prison, soldiers and war tanks" (Gülgönen and Corona 2015: 220) in order to deal with strangers and criminals. These requests allude to the influence of media consumption (particularly action films), as well as the desire to have a completely different city. The children were able to accurately incorporate its contradictions and defects into their illustrations rather than portraying a flawless and far-fetched design. This pragmatic awareness was echoed by Bolivian children from La Paz in their oral descriptions of their ideal city:

> 'This is my city, it's not perfect, but even if it isn't, I still love it the way it is, even if there are robberies, theft, I'm still going to love it. I believe that if we all make a little more effort, we can achieve a better place for all of us' (Cielo 10 years […]).
>
> (Serrano 2015: 15; own translation)

A conspicuous detail is that these Bolivian children, as opposed to their Mexican counterparts, pointed out and stressed the need for their city to change rather than envisioning it being created anew.

A noteworthy finding from our meta-analysis is that young people do not imagine the improvement of their barrios and cities exclusively in physical terms. Across the sampled studies, we observed that they also care, and thus have empathy, for social issues and advocate a sense of community. For example, the research on young Poles growing up in 1990s Warsaw indicates that, if they had financial

resources at their disposal to improve their neighborhood, youths would devote part of the funds to people facing economic hardship:

> even though this was not an obvious way of 'investing' in the neighborhood. It demonstrated their sensitivity to the needs of people who face difficulties and contradicted the image of young people as too 'cool' to be concerned with any social issues.
>
> (Zylicz 2002: 214)

Children growing up in the suburban northwestern United States during the 1990s indicated a clear preference for spaces that were characterized by not only activity, vitality, and playfulness but also social interaction, diversity, and accessibility in their drawings of the ideal neighborhood, which reflected a "socialized […] view of [their envisaged] neighborhood" (Talen and Coffindaffer 1999: 329). Similarly, but on a larger scale, the young Bolivians from La Paz demonstrated awareness for socioeconomic disparities in their drawings of their ideal city:

> an ideal city for Boris and other children is one in which there is no inequality or discrimination '…there would be neither rich nor poor, everyone would be equal, there would be no discrimination, it won't matter what color or age [you are] in this city…' (Boris 11 years old […]).
>
> (Serrano 2015: 17; own translation)

Additionally, proposals shared during group discussions were not delusional by any means. For instance, in order to promote economic transformation, children believed that the city government should provide affordable (or even free) housing and grant access to basic services. Finally, in addition to being egalitarian and properly equipped, interviewees said that their ideal city of La Paz needed suitable spatial conditions for distinct social relations to thrive: "[F]or children, in their ideal city, everyone greets one another, 'just like in small towns', there ought to exist a principle according to which [a sense of] community, in the city, can be generated" (Serrano 2015: 17).

In conclusion, the various ways young people would improve their neighborhoods and cities are not necessarily a simple expression of their wants and desires. On the contrary, our findings illustrate that young people are empathetic enough to understand that where they live is part of a broader socio-spatial context that requires improvement and change. Accordingly, young people's spatial conceptions of the future range from specific infrastructural improvements to abstract pleas for safety, socioeconomic justice, and inclusiveness, which, far from idealistic, seems to defy the adage "the wish is father to the thought."

The multifaceted development of young people's spatial perception: Stable criteria meet growing open-endedness

The synthetized results presented in this chapter encompass the myriad dimensions that have characterized and shaped the spatial perception of young people over the past five decades, a period in which the spatial organization of society across the

world has experienced a visible transformation referred to as the refiguration of spaces (see Chapter 2). By combining the amplitude of both positively and negatively perceived spaces with the imaginative and transactional aspects of young people's spatial perception, we have identified different factors that describe the evolution of young people's spatial knowledge. To begin with, young people's perception and evaluation of spaces appear to be subject to a relatively stable set of criteria based on their assessment of environmental-physical affordances. In other words, the elements that make spaces positive or negative—the sinuosity of young people's spatial perception (see Figure 5.3)—have not changed dramatically over the past 50 years and across the geographic contexts of the meta-analyzed studies in our sample. Positively perceived spaces (those that represent "The Peak") mostly include (un)developed outdoor spaces such as parks, playgrounds, pastures (in rural settings), and, increasingly, spaces of consumption. These preferred and frequented spaces typically offer the freedom necessary for young people to be autonomous and provide adequate options for them to meet and play with their peers. Moreover, this is where young people exhibit a refined level of spatial cognizance, which in turn allows their practices to unfold without any major resistance (see Chapter 6) to the extent that they constitute spaces of appropriation (the epitome of positive spatial perception). The home, school (including the campus), and routes to school fall somewhere between positively (the amplitude) and negatively (the inverse amplitude) perceived spaces. These spaces move loosely along the curve of the spatial perception (and assessment) axis, for they are subject to varying spatial perceptions due to the mixed and at times contradictory feelings young people have about them. On the opposite end of the spectrum ("The Nadir"), negative perceptions and evaluations of spaces are mostly related to emissions, a lack of (or poor) infrastructure and maintenance, undesirable user groups, nighttime (since it evokes a feeling of insecurity), and, most prominently, constraints due to motorized traffic (see Figure 5.3). It is worth noting that although positive and negative spatial perceptions must be also thought of in terms of a gradation, our findings also illustrate that spaces are perceived by young people as positive or negative "currents." This is what led to the idea of representing young people's spatial perception as a sinuous curve spanning opposing amplitudes.

There are two counter examples within young people's spatial perceptions and assessments: spaces of consumption and streets. On the one hand, spaces of consumption have gained traction among young people, and in some of the geographic contexts of the sampled studies, they have even come to replace traditional public spaces—which are perceived as dangerous and unwelcoming—as young people's meeting points. On the other hand, in specific geographic contexts and prominently in urban settings as of the 1990s, the streets have become associated with negative perceptions, which are founded on both the embodied-experienced production and mediated acquisition (influenced by media consumption and parental mindsets and restrictions) of spatial knowledge. Interestingly, while factors such as motorized traffic, presence of strangers, and lack of mobility—catalyzed by media and parental narratives—make young people perceive streets negatively, our findings also show that the streets (together with other public spaces), deemed a spatial setting of non-formal learning, play an important role in young people's socialization

(see Chapter 6). This ambivalence that permeates the streets is also perceptible on streets dominated by consumption, which increasingly attracts young people and, as such, challenges—and convolutes—the tendency for young people to perceive streets negatively. The shift in the perception of both spaces of consumption and streets also reveals a rather unexpected and antithetical consequence: namely that highly regulated and controlled spaces—such as shopping malls—are becoming more and more significant to young people. By no means does this imply that streets are free of control and regulation, but when compared to the level of surveillance experienced by young people (even inadvertently) in spaces of consumption (see Chapter 7), the growing popularity of those spaces is perplexing, for it is not entirely clear why young people are willing to tolerate (or accept) this substantial degree of control and supervision. A plausible explanation is that spaces of consumption are positively perceived by young people because their affordances are more attuned to their needs and preferences, such as safety and Internet access. All things considered, due to the complex paradoxical character with which streets and spaces of consumption are imbued, we must stress that none of our claims here are universal (see Chapter 3).

With regard to the inherently intricate issue of security, our meta-analysis points to its prominent role within young people's spatial perception. In certain geographic contexts (primarily urban settings), for example, perceptions of insecurity are connected to traditional public spaces (like parks and squares) where young people have a hard time fitting in or finding a spot to appropriate. Oddly enough, this also applies to institutional spaces such as schools (both the buildings and the campus) and even the private space of the home (hence their placement in Figure 5.3 as "in betwixt and between"). In terms of the evolution of young people's spatial knowledge, we have also identified a growing number of sources and factors that trigger feelings of insecurity across all geographic contexts represented in our sample. As a result, the perception of spaces traditionally perceived as safe (and thus positive) has become ambiguous. Accordingly, young people's whereabouts are shaped and progressively limited by feelings of safety, which can tip the scales against wider opportunities to produce embodied-experienced spatial knowledge in favor of a broad acquisition of mediated spatial knowledge. Furthermore, we also see young people developing a set of strategic spatial practices aimed at coping with (and potentially overcoming) their feelings of insecurity. These coping strategies and tactics include avoiding ever being alone, monitoring their surroundings, being (and remaining) on the move, staying home, creating micro spaces (from hideouts to hangouts), and, more recently, using (new) media to gain access to and even create new spaces (see Chapter 7).

Moreover, the gender gap stands out in our findings as a prevalent condition throughout the times and geographic contexts of the sampled studies, substantially shaping young people's spatial perception and thus the evolution of their spatial knowledge. More specifically, boys and girls appear to perceive spaces differently due to either self-imposed or parental restrictions (incidentally, fueled more often than not by safety issues). Not surprisingly, girls' and young women's prospective conceptions of their ideal neighborhood tend to be much more home based, revealing greater fears than boys and young men of being in and using other spaces in

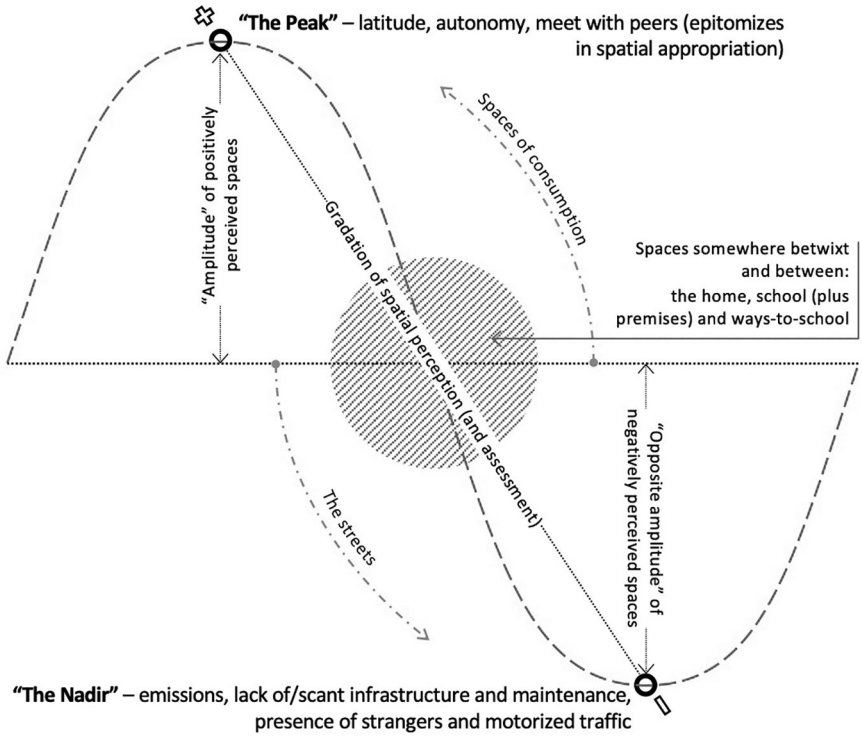

Figure 5.3 The sinuosity of young people's spatial perception (and assessment). The criteria for spaces to be perceived mostly positively ("the Peak"), mostly negatively ("the Nadir"), somewhat positively (the amplitude), and somewhat negatively (inverse amplitude) have remained stable for the most part. Spaces such as the home, school (including campus), and routes to school are suspended between both amplitudes and move along the two poles (the peak and nadir) of the gradation of spatial perceptions (and evaluations) depending on the specific geographic-contextual circumstances of the sampled studies. Spaces of consumption and streets illustrate opposite tendencies: whereas spaces of consumption have been perceived increasingly positively, thus becoming more relevant, streets have been perceived more negatively (largely as a result of insecurity).

Source: Own elaboration (based on a sinusoidal alternating current).

their neighborhoods and cities. As deep rooted as the gender divide appears to be, we nonetheless identified the beginning of a potential transition thanks to access to new media (which may still reflect gender and class disparities). Virtual spaces can be used as a gateway into a realm where girls and young women have the freedom to express their identities without resistance from societal, cultural, or religious mandates.

Similar to their aptitude for developing the previously mentioned coping strategies and tactics, young people are also skilled at drawing comparisons between (quite) divergent urban, suburban, and rural spatial settings and understanding and

putting into perspective transformations that occur (or have already occurred) in their natural and built environments. Furthermore, this ability to examine comes into play when young people travel around or grow up in multiple geographic contexts (which may include countries in different world regions). Therefore, a wide range of embodied-experienced spatial knowledge is produced as they interact with spaces in various settings and even perceive profound transformations (particularly when visiting home after extended periods time). In addition, using here-and-there and before-and-after comparisons indicates how young people use their spatial discernment signification to identify distinct spatial traits and qualities (see Chapter 6) with their senses and adjust their perception and evaluation of spaces according to both what they have learned and what they imagine. Thus, young people's spatial knowledge has become more and more translocal to the extent that it encompasses multiple spaces that are distant from one another by drawing comparisons in both temporal (before-and-after) and spatial (here-and-there) terms.

We argue that the influx of (particularly new) media has impacted the multifaceted evolution of young people's spatial perception with regard to its hybridization. Due to the way in which nearby and concrete spaces are perceived and evaluated compared to remote and abstract spaces—the two are inversely proportional—the increasing use of (mobile) devices with access to Internet has not only prompted a withdrawal from the streets into the private sphere of the home, but also paved the way for newfound relationships between indoor and outdoor as well as online and offline practices. This has allowed young people to circumvent constraints and expand their freedom to roam: for instance, the possibility to get online virtually anywhere diminishes the relevance of spaces like the home and Internet cafés as gateways to virtual spaces. The relationship between the production of embodied-experienced spatial knowledge and the acquisition of mediated spatial knowledge has been rearranged due to the fact that mediated knowledge initially gained prominence following the increased consumption of new media at home (from the appearance of television sets to the inception of the computer and Internet). Eventually, widespread access to the Internet, coupled with accelerated technological advancement, gave way to instant access to virtual spaces irrespective of young people's physical location. In other words, while environmental-physical affordances signaled the reign of the home as the (almost only) space where young people could consume media, there has been a shift toward a new appreciation for open public spaces. This has allowed young people to strike a balance between their online and offline spatial practices. For example, young people can enhance their experience of public spaces using their portable digital devices to continue communicating with friends and interacting in virtual spaces, all the while navigating the streets or hanging out with their friends in the park or shopping mall. Furthermore, it is also noteworthy that this phenomenon is perceptible across geographic contexts in both the Global South and North, yet the traditional gaps along class, age, and gender lines persist. Thus, the trend is anything but equally distributed. Although it is tempting to say that old media (television, radio, books, and songs) have become outdated and therefore no longer influence young people's spatial perception (and assessment), in specific geographic contexts they are still

very much an integral part of young people's everyday lives and, as such, of both their spatial perception and acquisition of mediated spatial knowledge (from learning about their country of origin to remembering spaces once considered home).

As we pointed out earlier, young people display their spatial perception through the act of remembering spaces (before-and-after comparisons, see Figure 5.2) and interpreting their present circumstances, even bringing together distant and nearby spaces by means of media consumption. Accordingly, young people's past and present spatial perceptions are based on constant transactions of produced embodied-experienced spatial knowledge and acquired mediated spatial knowledge, which also serve as the basis for the imaginative character their spatial perception may have. As a result, young people can picture and articulate their spatializations of yet-to-materialize and desired futures by sharing their insightful thoughts on what their neighborhoods and cities should eventually look like, what improvements and changes are necessary, and even where they see themselves living somewhere down the line. In the meta-analyzed empirical studies, young people's future conceptions of their neighborhoods and cities and desired improvements revealed the recurring demand for (more) open green spaces (located at the peak of the amplitude of positively perceived spaces for good reason). Additionally, good infrastructure and increased security are also elements that feature prominently in young people's prospective spatial perceptions, despite suggesting some adult (chiefly parental) influence. Moreover, young people frequently envision their spatial futures to include a strong and pervasive sense of community. While these conceptions might seem somewhat stable at first glance (given their recurrence) and not all that surprising, a closer look suggests an increasing impact of translocal spatial references on young people's prospective spatial perception and thus their spatial knowledge. Specifically, the assessment of missing or defective amenities and basic services, such as a properly functioning water infrastructure and waste disposal management, reveals explicit references to spaces located elsewhere (although it is not always possible to determine in the sampled studies how the young people learned about those spatial references). Be that as it may, this blurriness is anything but coincidental in view of the growing mediatization and translocalization (see Chapter 2) of young people's spatial perception (and assessment) due to greater media consumption, the hybridization of spatial perceptions and practices, and increased mobility.

6 Learning arenas and agencies of spatial knowledge

Physical-sensory production, scholastic acquisition, and a varied in-between

The production and acquisition of spatial knowledge: Learning to constantly see the world objectively

In this chapter, we look at the evolution of young people's spatial knowledge by focusing on specific learning arenas and agencies at play throughout its production and acquisition. In this context, arenas refer to conditions and circumstances that delimit areas of both formal-institutional and non-formal learning activities. Agencies, on the one hand, refer to the ability to choose what learning action to take, thus gaining a sense of agency (which pertains mostly the production of spatial knowledge). On the other hand, agency relates to the capacity to act as a conveyor, making it possible to achieve certain learning goals (which predominantly concerns the acquisition of spatial knowledge). To narrow down the broad spectrum of arenas and agencies we came across in our sample, we draw on two driving principles: (i) the gradual development of an objective view of the world and (ii) its accompanying (and traversing) learning processes. In broad terms, an objective view of the world signals the cognitive stage in which objects, spaces, and their interrelationships are consistently perceived and conceived (Sack 1980). The learning processes we are interested in are those underpinning this consistent and objective view of the world and through which spatial knowledge is produced and acquired. Furthermore, the character of the learning process is closely connected with agency: When learning actions are (autonomously) undertaken, learning is virtually always non-formal, whereas when agency involves acting as a conveyor, it is almost always formal-institutional (see Chapter 2 for more details). With this delimitation, we seek to circumvent statements that would purport that learning processes are everlasting and therefore that (spatial) knowledge is constantly being produced, acquired, and diversified. Additionally, key terms that are drawn upon throughout the chapter (spatial practices of play, spatial settings of formal-institutional and non-formal learning processes, etc.) are progressively introduced and explained based on our empirical findings. We have also created several concepts to deconstruct the notion of spatial knowledge, look into its evolution, and, in so doing, substantiate the meta-interpretations of the results (see Chapter 3) throughout the chapter (see Box 6.1 and Figure 6.1).

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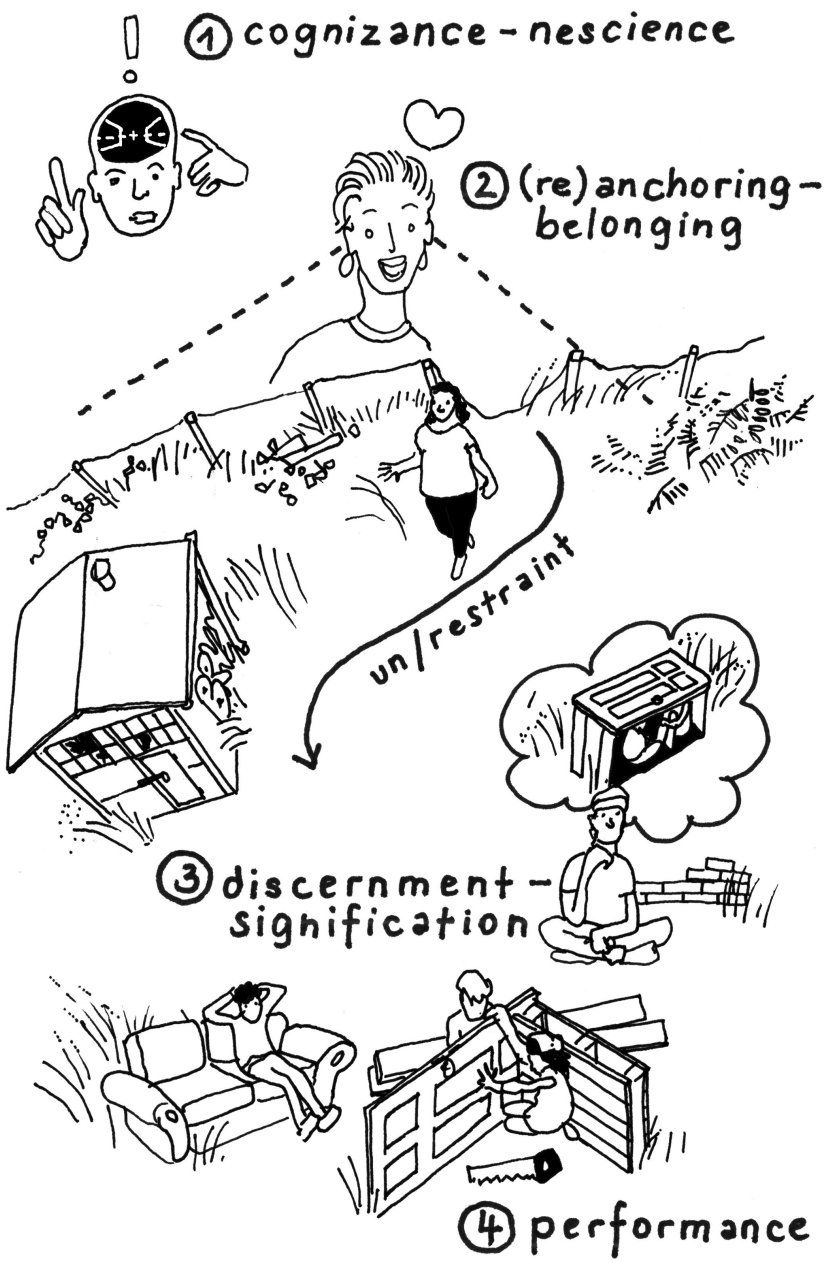

Figure 6.1 Set of constructs elaborated to deconstruct the notion of spatial knowledge, look into its evolution and, in so doing, substantiate the meta-interpretations of our findings. Graphic: Grit Koalick, visuranto.de, based on own elaboration.

Box 6.1 Set of constructs elaborated to deconstruct the notion of spatial knowledge, look into its evolution and, in so doing, substantiate the meta-interpretations of our findings

Spatial cognizance/nescience: ability or inability to recognize and understand spatial knowledge.

Spatial identity-belonging: capacity to connote (i.e., ascribe meaning to) spaces alluding to a sense of belonging and identification (e.g., spatial traits as an essential basis of identity formation).

Spatial liberty/restraint: availability of or need for mobility based on sentiments of (in)security and ease.

Spatial discernment-signification: ability to sense and identify distinct spatial traits and qualities.

Spatial performance: grasping and seizing opportunities to intervene (symbolically and/or materially) in space.

Source: Own elaboration.

An important aspect to bear in mind while reading the ensuing synthetized results is that boundaries between non-formal and formal-institutional learning processes (and, by extension, their respective spatial settings) are not as clear-cut and easily perceptible as depicted in theory (see Chapter 2). Rather, they are blurred in several meta-analyzed studies (e.g., Malone and Hasluck 2002; Jaramillo 2011; Milstein 2013; Burke et al. 2016). For instance, the fact that formal-institutional agencies are located outside spatial settings of formal-institutional learning (e.g., schools and their premises) makes categorizing the learning process complicated. Thus, according to our specific meta-interpretation (see Chapter 3), which relates the studies with one another, it is the non-formality of the spatial settings or the non-institutional character of (or role played by) the agency involved what determines whether they are formal-institutional or non-formal.

By and large, our findings indicate the existence of a much wider array of non-formal learning arenas that, in a few cases, overlap with formal-institutional ones. Within our sample, we also identified recurrent factors that demarcate the explorative and performative character of non-formal learning processes along gender and class lines. For example, across geographic contexts and periods of time, boys almost unequivocally enjoy greater freedom to wander around and thus broaden their production of spatial knowledge. While this confers a degree of consistency to the evolution of young people's spatial knowledge, the growing relevance of virtual spaces together with socioeconomic, political, and physical transformations have marked turning points. Furthermore, we have put these findings into perspective from two main viewpoints. On the one hand, we explain how young

people's spatial knowledge evolves in light of their ability to produce an (internal-subjective) comprehensive view of both space and spatial systems. On the other hand, we underscore how formal-institutional and non-formal learning processes substantially impact not only this competence, but also much of how spatial knowledge is produced and acquired, for they mediate the internalization of environmental (external-objective) transformations. Building on both these angles and the conceptual basis outlined above, we have arranged the chapter as follows: First, our results are explained with an emphasis on the stocks of spatial knowledge and their nature—embodied-experienced and mediated. Afterward, we direct our attention to the spatial settings of both formal-institutional and non-formal learning processes. At the end of the chapter, we reflect on the general learning arenas and agencies of young people's spatial knowledge in terms of their evolution and the refiguration of spaces.

A physical and sensory examination of the (natural/built) environment: The bedrock of young people's spatial cognizance

The case of children who grew up in the city of Herten, Germany, during the first half of the 1980s serves as a starting point from which to understand the production of embodied-experienced stocks of spatial knowledge (Apel et al. 1985). The practical corporal, physical, and sensory engagement of these children with their spatial surroundings—beyond their homes and the institutions traversing their everyday routines (e.g., the school)—represent a mode of non-formal learning from which embodied-experienced stocks of spatial knowledge were produced. In other words, these children learned about their spatial-structural environment and its constitutive elements through direct interaction with it: from the physical "understanding of things with all the senses" to the "understanding of the environment with the mind" (Apel et al. 1985: 147; own translation). Moreover, through this interaction with the mostly built environment, children also "familiarize themselves with the nature of their society through direct experience and through direct contemplation" (Apel et al. 1985: 147; own translation). By the same token, though for clearly different reasons and purposes, children growing up in the rural village of Howa, Sudan (Katz 2004), around the same time as their German counterparts absorbed the knowledge inscribed in their immediate mostly natural environment by participating in activities related to the prevalent mode of (re)production: an agrarian economy of subsistence. While in both cases stocks of spatial knowledge were acquired and applied through direct contact with the respective environments, children in Howa acquired spatial knowledge by virtue of a mediating agency: adults teaching children how agrarian tasks were to be performed. However, the Sudanese children nurtured their spatial knowledge on their own as well; thus, their spatial knowledge was as much embodied-experienced as mediated.

A similar implication as that of the mode of (re)production in Howa is perceptible among young rural Bolivians who saw themselves suddenly immersed in a new urban environment. This change of surroundings, however, seems to have had

the opposite effect. Rather than becoming closer to their environment and learning how to transform it (like the children in Howa did), coming to terms with the new spatial environment proved difficult for these young Bolivians. More specifically, their routine and habitual spatial practices and perceptions were challenged directly (even to the point of immobilizing them):

> One family, who had recently migrated to the town of Tarija, reflected on their children's initial reaction to urban life: […] 'At the beginning, the children could not get used to being enclosed. Here it is enclosed because of our fear of the cars. The children were sad for about two months, they used to lie down and peer out under the gate.' […] (Celia, parent).
>
> (Punch 2000: 53–54)

This case shows how moving from a rural to an urban setting can mark a dramatic turning point in the production of spatial knowledge. However, rather than being exclusively linked to exceptional events, the causes of changes in spatial knowledge can also be prompted by relatively small modifications in young people's lives and their intellectual maturity. For instance, young people who grew up in the town of Inavale, New England, USA, during the late 1970s and early 1980s show a correlation between specific changes in their circumstances and a refinement of their spatial knowledge (Hart 1981). One young girl, who like her Bolivian counterparts moved to a new house, enjoyed greater leeway, which in turn enabled her to describe graphically the spatial organization and scale of her whereabouts more elaborately over a period of 15 months. Furthermore, this constitutes

> an expression of at least three important changes in her life: moving home from the top of North Hill Road to Factory Lane, much closer to the center of town; walking to the high school to catch the large yellow school bus, instead of waiting for a car beside her home; and […] changes in [her] intellectual ability.
>
> (Hart 1981: 216)

While these three changes did not constitute a turning point in the interviewee's spatial knowledge, they do signal that it was enhanced within a fairly short stretch of time. Although this is something that the Bolivian young people may also have experienced, they might have required more time to get there.

Moreover, echoing the spatial knowledge production of children in Howa, young people in the self-built settlement of Sathyanagar in Bangalore, India (Bannerjee and Driskell 2002), both produced embodied-experienced and acquired mediated stocks of spatial knowledge. These young Indians drew on their perceptions of the spatial conditions surrounding both their homes and the settlement as a whole. In addition, the intermediating agency of adults was determinant: They passed on their knowledge of how to care for their living environments (maintenance and cleaning activities). Furthermore, the embodied-experienced spatial knowledge of these young Indians was based on an acute observation of their immediate built

environment. For instance, they provided detailed accounts of the situation in and around their homes when asked. At the same time, they had a hard time describing issues affecting the whole community and determining whether they had any say or agency to resolve them.

A counterpoint to the cases referred to thus far can be seen in the young boys living on the streets of the Indonesian city of Yogyakarta (Beazley 2016), who, both like and unlike the abovementioned German children, generated stocks of spatial knowledge without any direct form of mediation. In both instances, spatial knowledge was produced through a process of discovery and engaging directly with the spatial surroundings. Nevertheless, given their extreme need for survival, the Indonesian boys' exploration of their city implied a faster and wider development. Hence, whereas the Sudanese and German children, together with the young US-Americans, Bolivians, and Indians, produced stocks of spatial knowledge in relatively close proximity to their homes, the homeless Indonesian boys illustrated through a drawing exercise a wider landscape of embodied-experienced spatial knowledge in which the notion of home was blurred and anything but typical. More specifically, their mental maps reflected an array of variables, such as their age and how long they had been inhabiting the streets. As it happens, the older boys' maps encompassed "a much broader mental territory, as a result of a widening experience from the central area" (Beazley 2016: 175).

As we have shown, there are varied conditions in which young people produce embodied-experienced, acquire mediated stocks of spatial knowledge and even a combination of the two. The intermediary role played by adults (notably, parents) is also perceptible. This influence can be observed within the previously reviewed studies in various manners: for example, parental decisions with regard to allowing their children to wander around or taking them home (Herten, Germany); passing on to them knowledge about primary means of subsistence (Howa, Sudan); moving somewhere else rather abruptly (Churquiales, Bolivia); relatively minor changes in daily life (Inavale, USA); and caring for and/or neglecting living conditions (Sathyanagar, India). Still, it was arguably the agency of the researched young people that triggered, directed, and animated the production of embodied-experienced stocks of spatial knowledge—and, by extension, its underlying non-formal learning process.

Thus, their *spatial cognizance/nescience* depended more on the amount of *spatial liberty* (see Figure 6.1 and Box 6.1) they enjoyed for their learning actions: for instance, to simply contemplate the built environment, like the German children in Herten, or to constantly be on the go, like the homeless Indonesian boys in Yogyakarta. As a result, their ability to perceive specific features of spaces is enhanced, which demonstrates the level of *spatial discernment-signification*: as reflected in the young Indians' detailed descriptions of their homes and abutting spaces, for example. Eventually, young people are able to enact their *spatial performance*, thus seizing opportunities to intervene and even alter their immediate (natural/built) environment at both a symbolic and material level (see Figure 6.1 and Box 6.1). Interestingly, while the researched young Indonesians and US-Americans show a palpable degree of spatial performance, their Bolivian and Indian counterparts

appear to have undergone difficulties enacting theirs. Overall, all of these elements are integral to the learning process that underpins and traverses not only the production but also the acquisition of spatial knowledge by young people. In the next two subsections, we present how the notion of learning processes fits into our synthesis of results by focusing on the nature of their spatial settings and correlative agencies. We first focus on the spatial settings of formal-institutional learning processes, in which young people almost invariably are imparted spatial knowledge and tend to have little to no agency.

Spatial settings of formal-institutional learning processes: Fixed arenas and agencies of the educational acquisition of spatial knowledge

The scope and breadth of the discussion on young people's spatial knowledge is significantly scaled down within this section, for we place the emphasis on the spatial settings of formal-institutional learning processes. To that end, we have grouped and synthetized our findings into two clusters. First, we discuss the material and symbolic relevance of the school in young people's spatial knowledge and then the impact of conveying spatial knowledge through formal-institutional teaching. Within several sampled studies, formal-institutional learning processes and their respective spatial settings mostly—albeit not exclusively—converge in both the physical and symbolic figure of the school. The spatial knowledge young people produce within, and thus attribute to, the notion of the school has an impact on the relevance of its physical manifestation (i.e., building plus premises) beyond its formal educational arrangements and on its socio-institutional character (i.e., a means of social mobility). Hence, the school might be given an exceptional status as "a safe space" (Buss 1995) within landscapes of mostly insecure spaces. However, we also found that young people perceive the school rather ambivalently (see Chapter 5). This act of connotation allows for spatial identity-belonging in which young people who perceive their daily surroundings as predominantly unsafe gain a certain degree of emotional stability. Moreover, this coping mechanism cuts across diverse geographic contexts (from the United States to Mexico to Poland). Also, while it dates back to the early 1970s (Lynch 1977), it seems to have progressively faded during the 1990s (we spotted the most recent evidence in a study published in the early 2000s (Zylicz 2002)). As to the socio-institutional character of the school, we discuss the spatiality and temporality of the practice of studying across the diverse empirical cases that were meta-analyzed taking into account various socio-cultural determinants together with the adaptive tactics and acclimation strategies young people develop. Here, the school correlates with formal-institutional learning and the aspiration for a better quality of life throughout the locations and times of our sampled studies. Finally, we examine the formal-institutional impartment of spatial knowledge, which offers a great deal of potential but appears to have fallen somewhat short as it was not a recurrent topic within our sample. Moreover, only one recent study (Million et al. 2019) revisits this issue and demonstrates the wide array of possibilities that can be used to convey spatial knowledge to young people institutionally and formally, yet innovatively.

Material and symbolic relevance of the school: An ambivalently denoted space

Seen through its socio-institutional character, the school becomes an enabling space for young people within both their present and, perhaps more prominently, their potential future living conditions (see Chapter 5). To varying degrees, this results in young people's temporal and spatial structures being increasingly dominated by school-related activities, which, in extreme cases, may even have young people run themselves into the ground to achieve access to a better life. To cope with this mandate, young people develop strategies, be it at the behest of parents and teachers or on their own initiative, to maximize their spatial and temporal studying conditions: Zambian youths stay on the school premises longer to study (Gough 2008), extra-curricular activities and concomitant spaces are progressively left out of Chilean high schoolers' daily routines (Sepúlveda 2018), and study slots are somewhat forcibly squeezed in and traditionally non-studying spaces are transformed into study areas by poor young Indians (Bannerjee and Driskell 2002).

Almost unequivocally, school is regarded as where formal-institutional learning is harbored and thus thought to be the epitome of social mobility. This is glaringly evident among children growing up in Taipei back in the late 1960s and early 1970s, for whom school and learning were presented as either more or less important according to the socioeconomic status of their families (Schak 1972). Whereas mothers from upwardly mobile (i.e., middle-class) families kept their children at home and made sure they studied and did their homework, working-class children enjoyed the freedom to spend time outside and play with friends. This disparity is caused by the prospects parents have for their children's future. Middle-class mothers restricted playing (particularly outdoors) and encouraged studying on the grounds that better performance in school leads to higher education and thus social prestige. In contrast, working-class mothers desired for their children to become economically active as soon as possible and therefore did not press them to complete their schoolwork.

Around the same time, young residents of Colonia San Agustín (a popular self-built neighborhood) in Ecatepec, Mexico, who were part of a transnational pioneering study on young people's everyday lives (Lynch 1977), cherished the school—both the edifice and institution—remarkably. While young people in other researched cities (Warsaw and Cracow, Poland; Salta, Argentina; and Melbourne, Australia) did not once mention the school as a space in which they were interested or where they would ever choose to spend their time (they would much rather go out to the streets, natural open spaces, wastelands, etc.), the researched young Mexicans in Ecatepec "consistently named their school as a favorite place and gave it a loving emphasis on their maps" (Lynch 1977: 49). It can thus be deduced that

> for them the school is a welcome relief from the harsh reality of poverty that surrounds them—an oasis of stimulating experience where the children can do new things and read books that open up the wonders of the world. This […] points to the important role that schools can play in the lives of poor children.
>
> (Lynch 1977: 49)

Unlike the Taiwanese children, for whom the relevance of the school was either imposed or downplayed by their parents, young people in the self-built housing settlement of San Agustín seem to have internalized the importance of the school by themselves. For instance, when asked about how they would improve their community, "they want more and better schools—including vocational schools where they can learn skills—more parks and playgrounds" (Lynch 1977: 54). Learning, in its formal-institutional and spatial form, dominates their future spatial imagination (see Chapter 5), for it is considered a way out "of poverty and indignity and [they thus turned] […] to their schools for more education, more skill" (Lynch 1977: 54).

Like the young Mexicans from Toluca, some of the researched US-American children growing up in Los Angeles during the early 1990s perceived and valued the school as a safe space (Buss 1995), while others, oddly enough, did not (see Chapter 5). Moreover, this positive perception, similar to the case of the Taiwanese children, was mediated by adults—but not their parents. For those young Angelenos who felt secure at school, it was the presence of their teachers what made them feel comfortable and protected, which is why they saw it "as a nurturing, care-giving environment, which they associate with security, mental stimulation and support"; as one interviewee put it: "'I feel safe in the school. There is no danger. The teachers take care of me' (Baldwin Hills)" (Buss 1995: 347). Both the Mexican youths in Toluca and the US-American children in Los Angeles turned to the school to offset the harsh conditions permeating their neighborhoods. What is more, the school, in the case of the young Angelenos who viewed it favorably, functioned

> as a peace-keeping zone within a turbulent neighborhood or community. The school offers neutral turf to those whose neighborhoods are in dangerous conflict zones: 'I feel that is OK to be active at the school playground. I can do whatever I want. They are not killing people there.' (Baldwin Hills).
>
> (Buss 1995: 347)

In line with the case of the middle-class Taiwanese children whose mothers saw greater chances of a better future for them in their formal-institutional learning (Schak 1972) and the poor young Mexicans who were well aware of the part the school played in their pursuit of a better life (Lynch 1977), young Indians growing up in the vulnerable periphery of Bangalore appreciated the very limited access they had to formal-institutional learning. Interestingly, these researched youths were particularly concerned with their formal learning for different, more altruistic reasons than those of their parents (i.e., because it constituted a means of social mobility): "'I would like to be a teacher when I am grown up, to teach all the young kids in this place, because no good teachers are there' (Anand, age 12)" (Bannerjee and Driskell 2002: 143). In fact, their commitment to formal-institutional learning, as opposed to middle-class Taiwanese children who were "forced to study," allowed them to squeeze quiet moments to study into their bustling temporal

structures—boys were expected to find an informal job and girls to help around the house. Moreover, due to

> their cramped home environments and the noise and disruptions throughout the area, it was often necessary for them to find an out-of-the-way corner in which to study, or to either stay up late or get up early (so long as a light source could be found).
>
> (Bannerjee and Driskell 2002: 144)

A similar spatial performance that underpins such adaptive tactics and acclimation strategies employed by young people to study was exhibited by Zambian youths who prolonged their stay at the school to step up and stretch out their formal-institutional learning process because "in the school library […] most the facilities for studying are better than at home" (Gough 2008: 247). In a different geographic context, better-off German youths also spent longer hours at school, though not on their own initiative but rather because of the type of school they attended: an all-day school. As a result, a sizable portion of their daily lives took place there: "Up to and including 10th grade, classes generally last from 8 a.m. to 4 p.m. (counting homework supervision and remedial courses)" (Seggern et al. 2009: 135; own translation). A follow-up study (Gräbel et al. 2015) shows that this tendency has continued: The spatial and temporal structures of young Germans living in the city of Hanover were largely shaped by the school (due to wake-up times, routes to school, homework, and extra-curricular activities at the school).

Like these young Germans in Hanover, high schoolers in Santiago de Chile extended their school hours (Sepúlveda 2018). And similar to the Indian youths maximizing their studying practices and recognizing of the value of formal-institutional learning and under comparable parental pressure as that of the Taiwanese middle-class children, these young Chileans came up with a strategy of their own. In essence, they either homogenized or excluded spaces within their everyday trajectories to the degree that they could be incorporated or not into their formal-institutional learning landscape. Given that both secondary and higher education are determinants of socioeconomic status in Chilean society, researched youths tended for the most part to develop monothematic spatial structures, with almost everything revolving around curricular activities (Sepúlveda 2018). Moreover, this spatial structure was stabilized and directed toward defined academic success (i.e., higher education) and its corresponding institutional (i.e., the university) and physical (i.e., the campus) space.

The significance conferred to the school (or even the university) in symbolic and physical terms makes it a decisive recurrent reference within young people's production and acquisition of spatial knowledge. Our synthesized findings suggest that during the evolution of their spatial knowledge, the figure of the school, while ever present, is also paradoxically connotated. It could therefore be both a safety anchor and a vulnerable (as in it is easy to break into) space in the face of a hostile urban environment (Buss 1995). Likewise, the school represents a

perceptual entanglement when young people assess it as either a liked or disliked space (Lynch 1977; Zylicz 2002) (see Chapter 5). Moreover, the school is almost always positively perceived when seen as a springboard. However, it is worth noting the significance of socioeconomic status. While poor young people—like those in Mexico, Zambia, and India—are eager to attend school as they know how beneficial formal-institutional learning is, their German, Taiwanese, and Chilean peers seem to simply conform to schooling demands.

Although there are other types of spatial settings for formal-institutional learning (such as museums and public libraries)—which indicates that the school by no means stands alone—they did not appear significantly in our sample (something to consider for future research). As we mentioned previously, the issue of how spatial knowledge is (supposed to be) taught by way of formal-institutional learning processes could be discerned to a rather limited extent within our sample. Still, it is worthwhile addressing, which is why we explore this aspect in the next subsection.

Teaching spatial knowledge: What is it good for?

Typically, spatial settings of formal-institutional learning are no longer exclusively limited to the school and its grounds, and by extension to high schools, universities, campuses, etc. Chiefly in the Global North, there has been growing recognition for museums, libraries, and community centers as venues for formal-institutional learning. What is more, a landscape of learning can be generated in connection with other spatial settings (Coelen et al. 2017, 2019). Notwithstanding this phenomenon was not recurrent among the sampled studies, we identified some indications of how young people formally acquire spatial knowledge: that is, when it is taught as part of or even in addition to the official learning curriculum and enacted through the agency of teachers (sometimes in the form of environmental knowledge or cartography) at the school and, in one specific instance, beyond it.

US-American children who attended school in suburban New England during the late 1970s and early 1980s had a markedly low level of formal spatio-geographic cognition due to a rather limited institutional agency and curriculum. When interviewing children and asking them to draw maps of their town in a study from 1981, Hart, the author, noted the following:

> [T]hroughout all of the elementary school grade levels [children appeared] […] confused about the geographic hierarchies of city, state, and nation […]. This was particularly true of children younger than 8 years of age, of course, because of the gradual development of their understanding of class inclusion. However, for 10-year-old children not to know whether or not their own state and the neighboring states are different regions, or if they include each other, can only be understood as the result of lack of information.
>
> (Hart 1981: 228)

Interestingly, this cartographic illiteracy was seemingly caused by deficiencies embedded in the formal-institutional and non-formal learning process:

> Geographic or map education is given much less emphasis in American elementary schools than in other nations. There is very little useful geographic information in the popular media and there are very few maps or atlases available in the average home.
>
> (Hart 1981: 228)

While not explicitly stated, the fact that schoolteachers, qua institutional agents, do not expose children to enough proper geographic or map knowledge partially constitutes the genesis of the issue. Hence, this aspect ought to be addressed to have young people develop a more ample and sophisticated spatio-geographic knowledge. Likewise, the potential role of popular media is also noteworthy (particularly, in view of today's widespread access to Internet and use of digital devices, leading to deep mediatization).

A similar sentiment stems from the experience of having taught environmental education at schools in three districts of Barcelona (Hernandez and Sancho 1989). By and large, the study's authors stress that teaching children environmental education changes their perception and experience of their (natural/built) surroundings; however, the influence is not necessarily positive. A study program focusing on descriptive aspects and the negative assessment of urban settings can weaken children's relationship with their urban environment. Thus, to prevent this and encourage children to establish more positive relationships with their environments, they need to be introduced to ways of improving identified deficiencies— that is, by fostering their prospective spatial knowledge (see Chapter 5). Furthermore, "such factors as the teachers' own experience of the town, the teaching methodology used, the pre-existing feelings children have towards the environment and especially the quality of the environment itself, have to be taken into account" (Hernandez and Sancho 1989: 68). Compared to the previous case of US-American youths from New England, a key difference underscored by the study conducted in Barcelona is the need to have children switch to a more active and imaginative agency while learning about their (natural/built) environments.

Promoting a broader and critical cognizance of the quality of the (natural/built) environment and infusing more accuracy into the spatial knowledge of young people (as advocated by the study on US-American children) are not necessarily mutually exclusive. However, they do not seem to go hand in hand in practice. Young Poles who grew up in Warsaw during the late 1980s and early 1990s clearly demonstrated what happens when teaching spatial knowledge favors one aspect (accuracy) at the expense of the other (critical qualitative assessment). When asked about their perception of spaces in the city (other than their neighborhood), participating youths appeared to have superficial as opposed to first-hand experiential spatial knowledge. More specifically, interviewees "rarely listed more than ten [spaces]. Some participants were unable to mention any […]. One boy explained:

'I rarely go outside my neighbourhood'" (Zylicz 2002: 210). Moreover, the fact that these young people explicitly listed (and did not elaborate in any way upon) most of the spaces they knew suggests that this knowledge was acquired in very much the same way geographic information is taught in school: "Most frequently, they enumerated names of other Warsaw districts. Quite often [one] […] had the impression that the children quoted them as mechanically as they did the names of provinces or regions in their country" (Zylicz 2002: 210).

The three cases we have touched upon are indicative of the bearings both spatial settings and agency of formal-institutional learning have on how young people internalize the spatial knowledge they are taught. On the one hand, the fact that they learn at school causes young people to regard anything related to spatial knowledge as just one more subject they have to study (as in the mechanical repetition of the young Poles). On the other hand, an apparently faulty agency renders subjects that embed spatial knowledge (e.g., cartography) in the curriculum less germane to the overall learning process (as in the cartographic illiteracy of the US-American children). Be that as it may, such handicaps could be overcome, if a positive and analytical assessment of the (natural/built) environment were to be encouraged (as demonstrated by schools in Barcelona). In that regard, a more recent study on Austrian and German youths (Million et al. 2019) illustrates an alternative to engage young people in learning spatial knowledge from a different, exciting angle: a program on built environment education (UIA 2008; Million et al. 2018). By exposing young people to technical spatial knowledge through a formal-institutional agency and in formal-institutional spatial settings, the study shows how they acquired a theory of socio-physical space and developed skills to eventually interact with and modify their built environment. As indicated by one interviewed participant:

> Yeah really, you always look at it a little and ask yourself how they built that or why they built it like that? Couldn't they have built it out of something different? Or shorter? […] We also added an extension to our house and it is connected directly to the main house. And why didn't we extend it all the way to the top? […] Or why didn't we make it shorter or […] slanted or something?
>
> (Million et al. 2019: 176)

Moreover, a positive and enriching view was widely held by these young Austrians and Germans, who believed the participation in a built environment educational program fostered "skills, self-realization, autonomy, and fun" (Million et al. 2019: 182). Specifically, learning about and learning how to change space empowers young people.

As these reviewed studies indicate, upshots of formalized acquisition of spatial knowledge range from more precise cartographic proficiency and more meaningful connections with the (natural/built) environment (as opposed to mechanical repetition) to, more recently, the provision of (technical) knowledge and development

of skills to actively participate in modifying the material surroundings. It is noteworthy how the formal-institutional teaching of spatial knowledge has seemingly not gained much traction. As a result, it has remained somewhat downplayed and, at best, blended in with other school subjects, which have eclipsed it. While it is difficult to derive a definitive explanation for this, teaching spatial knowledge as an integral part of school curricula may raise similar issues as the debate on the desirability and purposefulness of proper and correct orthographic and grammatical writing. However, the study by Million et al. (2019) suggests that the trend to not integrate spatial knowledge (be it through cartography, geography, or environmental knowledge) can be broken by exposing young people to transformative spatial knowledge in novel ways.

A steady paradox and budding potential: The seemingly inconspicuous progression of the spatial settings of formal-institutional learning

Based on what we have discussed in this subsection, we see that the notion of the school, both symbolically and materially, is a recurrent and ever-changing element within the evolution of young people's spatial knowledge. As early as the 1970s, we identified how passionately the figure of the school can be denoted spatially by some of the researched young people as a sort of mobilizing device that promises a better spatial future, a tendency that extends well into the 1990s. At the same time, the influence of parents on young people has increased and ranges from forcing children to attend school, and thus obtain social prestige (Taiwanese children), to having young people organize their daily lives and spaces around academic performance for them to achieve higher education (Chilean teenagers). Another stable element is the appreciation-apathy dichotomy young people exhibit with regard to school, making its material spatial dimension ambivalent. While young people could actually enjoy being at the school and on its premises (like the rather exceptional case of young Mexicans during the mid-1970s) and purposely stay at school longer (as Zambian youths did during the mid-1980s), others progressively have longer school hours (like young Germans in Hanover) and may even incorporate out-of-school hours and spaces into their practices of studying without showing much enthusiasm (like Chilean high schoolers and Indian young people, though under very contrasting circumstances and in dissimilar manners). Moreover, the school may also constitute a lifebuoy for young people who feel immersed in an insecure urban sea, as illustrated in the cases of young Angelenos and Mexicans. Finally, the way young people acquire stocks of spatial knowledge through formal-institutional learning processes, via the agency of teachers and in the spatial settings of the school, has been consistently underplayed and thus substantially stripped of its potential relevance—something that only recently appears to be changing, as shown by the experience of young Austrians and Germans.

In the last section of this chapter, we turn our attention to the other side of the coin: non-formal learning processes, which unfold in a wider array of spatial settings and do not necessarily have an intermediating agency.

Spatial settings of non-formal learning processes: Loose arenas, autonomous performative agencies, and a fluid (novel) learning domain

This section comprises a wider constellation of processes and spatial settings of learning, which are deemed non-formal as they "show a direct correlation to life and action, entail a high level of autonomy, and promote self-learning processes in open [non-formal] learning settings" (Million et al. 2019: 22). Given that this section includes a wide assortment of spatial settings, it is broken down into various subsections, in which we have synthetized our findings according to recurrent themes such as the ever-present role and significance of public space and young people's play (underscoring that it is much more than merely messing around or amusement). In addition, we address the complex manners in which young people's duties (from household chores to poorly remunerated jobs) and non-formal (as well as peripheral formal-institutional) learning processes intersect. Finally, we touch upon what virtual spaces signify for non-formal learning processes and how they are used by young people.

Where (not necessarily) anything goes: Public space as the archetypical spatial setting of non-formal learning

The underlying argument of this subsection is that non-formal processes occur in spaces in which spatial knowledge is produced and acquired across various spatial coordinates with a public character. Among other implications, young people acquire their spatial knowledge in more complex and intricate ways than in formal-institutional arenas (where roles and relations are fixed for the most part). Hence, the spatial settings of non-formal learning allow young people to performatively acquire and physically implement spatial knowledge. Accordingly, spatial knowledge is underpinned by an interplay between the materiality-normativity of the spatial settings and the dynamics of non-formal learning processes: particularly, how perspicuously or surreptitiously space is arranged physically and thus pedagogized (see Figure 6.2 and Chapter 7). An assortment of public spaces—from courtyards and sidewalks to streets, parks, and cities as a whole—displays various instances and scales of non-formal learning processes through which spatial knowledge is produced and acquired via transactions between young people and adults, either as social intercourse or even strained relations with the state apparatus. Furthermore, within young people's non-formal learning processes, a (permanent) quest for independence and autonomy appears as a main driver of spatial knowledge usage. Moreover, in grappling with their current and imagining their future reality (see Chapter 5), young people form their identities while coping with the tensions and hurdles of non-formal learning processes taking place in contested public spaces.

Performative learning and physical implementation of spatial knowledge: Public space as training ground

As we have already argued, young people produce stocks of embodied-experienced spatial knowledge through direct and non-mediated interaction with their (natural/

built) environments. Within our sample, documentation of this non-formal learning process goes all the way back to the late 1920s and early 1930s when young people in the city of Hamburg, Germany, used the materiality of public spaces as a "training ground" (Muchow and Muchow 2012 [1935]: 212; own translation) to develop their physical-motor skills, such as riding a bicycle, running up slopes, or even using escalators. Therefore, we contend that what these young people were able to learn depended significantly on the particular material properties and qualities of the public spaces (that is, environmental-material affordances) (see Chapter 5) they were able to navigate on their own. Leaping forward in time from the 1930s to the mid-2010s, Bolivian children attending a school in downtown La Paz also used public spaces as a training ground and articulated their spatial knowledge in the form of skilled mobility. Similar to their German counterparts, these young Bolivians used the materiality of the public spaces, which they traversed when going back and forth from home to school, to test and refine their ability to move about the city. However, unlike the youths in Hamburg, the children in La Paz covered much larger distances and, as a key difference, even rode the bus on their own at a fairly young age. According to how they narrated their journeys during group interviews, the stocks of embodied-experienced spatial knowledge these children produced while moving around were deployed skillfully to give way to optimal movements and trips:

> [And you, José, how do you get home?] By minibus, it takes me half an hour to get there. [Why?]. I live more or less far away […] on the highway, I get off at the footbridges and I have to go down one, like a downhill street, where there's not much traffic and some steps I have to go down. Then, I reach a kind of avenue and, right after that, there's an area with dirt and stones, where I [could] also get off [the bus] and on one of the corners is my house (José 10 years old […]).
>
> (Serrano 2015: 9; own translation)

Other accounts show that these Bolivian children, aside from displaying what they knew about the city spaces they frequented, generalized their spatial knowledge: "as Gisela states '…you know people, streets, avenues, and zones…'" (Serrano 2015: 9; own translation). Moreover, both the specific and general spatial knowledge of the interviewed children seemed to be "a source of pride" given that "they want others to know how easy or difficult it is to [come to the school] from their neighborhoods" (Serrano 2015: 9; own translation). By swapping their itineraries, children also expanded their spatial knowledge of the city since "attending a school in the center means a chance to meet children from different neighborhoods and realities of the city, giving them the opportunity to learn more about it" (Serrano 2015: 9; own translation).

Similarly, but under different (and extreme) circumstances than the children in La Paz, young homeless Indonesian boys produced first-hand and acquired from others second-hand stocks of spatial knowledge about the diverse public spaces in the city of Yogyakarta (and beyond). Far from developing their physical-motor

skills (as the young Germans in Hamburg did) or optimizing their route to school (like the case of Bolivian children), the Indonesian street boys produced stocks of embodied-experienced spatial knowledge from the materiality of public spaces to develop survival strategies. As a result, "their identities were as fluid and shifted as frequently as the spaces in which they operated" (Beazley 2016: 188). Additionally, whereas transactions of spatial knowledge between Bolivian children seem to have been fostered by the institutional agency of the researcher who carried out the study and taken place in the spatial settings of the school, Indonesian boys acquired knowledge of apt-for-survival spaces through the non-formal learning that characterizes street children's subculture: in other words, directly from other children and while navigating the streets of Yogyakarta. One example is the train station, a space where most children first arrive in the city and where they are introduced to the street culture by other street boys. There, "the children learned from other boys about other places in the city for survival, such as shopping and Malioboro" (Beazley 2016: 179). Likewise, knowledge about surviving on the streets can be mediated translocally; for instance,

> Pri, one of the Surgawong leaders, got the idea to live under the bridge after he stayed with a street kid community in Jakarta who also lives under a bridge […] and Pri stayed with them for a few months before he returned to Yogyakarta.
>
> (Beazley 2016: 184)

Adult supervision, (im)mobility, and (un)restricted meandering: Factors influencing and upshots of non-formal learning processes

As shown in the three reviewed cases, the production and acquisition of spatial knowledge in spatial settings of non-formal learning are also affected by various factors that, to a greater or lesser extent, affect the performative learning and physical implementation of young people's spatial knowledge. Across our sampled empirical studies, and with geographic and contextual differences between the Global South (Lynch 1977; Serrano 2015; Saif 2019) and Global North (Hayward et al. 1974; Lynch 1977; Hart 1981; Apel et al. 1985), we identified the following recurrent factors: (a) the presence of caretakers (for the most part, parents), (b) (un) limited mobility, and (c) the (im)possibility to roam (an aspect that clearly varies based on gender).

Young people who grew up in a US-American urban neighborhood during the late 1960s and early 1970s, for example, experienced two widely different circumstances according to the type of playground they visited (Hayward et al. 1974). Thus, the level of autonomy and degree of self-learning underlying their production and acquisition of spatial knowledge varied accordingly. On the one hand, conventional playgrounds (traditionally equipped) were visited by researched school-age participants almost exclusively accompanied by, and under the close supervision of, a caretaker: be it a parent, day camp leader, nursemaid, or grandparent. Since the accompanying adults, by visibly exerting a strong social influence and guiding

play activities, "create or enforce some set of rules about acceptable and desirable behavior," conventional playgrounds, as spatial settings of non-formal learning processes, became arenas of spatial knowledge production where "interaction and play are mediated by caretaking adults" (Hayward et al. 1974: 146/158). Moreover, this active intermediating agency of caretakers had unintended consequences, particularly for the older participants in the study as "[b]oth implicitly and practically, the predominance of adults and preschool children at a playground […] may inhibit or even preclude the use of that playground by some school-age children and young teens" (Hayward et al. 1974: 146). On the other hand, adventure playgrounds were almost exclusively visited by researched school-age participants on their own. The absence of adult control (and intermediation) was much appreciated for the freedom it provided. In addition, adventure playgrounds, as opposed to conventional ones, enabled these young US-Americans to produce embodied-experienced spatial knowledge not only individually but also collectively: "The change from mostly parallel play at preschool age to cooperative and competitive peer group interaction at an older age may be facilitated by some freedom from adult supervision" (Hayward et al. 1974: 146).

Around the same time, some of the young people who were part of a transnational pioneering study on their everyday lives (Lynch 1977) were prompted to develop their self-confidence in spaces away from adult supervision, control, and intermediation in their production of embodied-experienced spatial knowledge. Unlike the aforementioned young US-Americans, young Australians, Argentinians, and Mexicans turned to the streets in search of more roaming leeway and thus expanded their spatial cognizance. Leaving aside the fact that these young people most likely did not have access to adventure playgrounds, the streets, regarded as spatial settings of non-formal learning, offered them a wider spectrum of opportunities than their US-American counterparts. Playgrounds are standard spaces dedicated to children and youth and are imbued with a high degree of spatial pedagogization (see Chapter 7). As such, they damper—irrespective of the presence and intermediation of caretakers—young people's spatial performance (and hence their spatial knowledge production and acquisition) to a substantial extent. In contrast, the streets constitute the domain where young people from the empirical cases (suburban Melbourne, urban Salta, and urban-disadvantaged Ecatepec) began

> to assert their independence of the family, [they] are testing a society of their own, and the street is the place for it. Streets are immediately at hand, and it is legitimate to be in them. Interesting things happen in the streets, and yet street behavior is not rigidly prescribed.
>
> (Lynch 1977: 13)

Now, this is not to say that young people's spatial liberty in the streets does not come without costs—much to the contrary. Young people are usually confronted with their own personal fears there and spaces they first perceive as insecure (see Chapter 5) while beginning to navigate them. Hence, young Australians, Argentinians, and Mexicans had to overcome "personal fear, dangerous traffic, a lack of

spatial knowledge, the cost of public transport, or, in case of the girls, parental controls" to be able to travel long(er) distances on their own (Lynch 1977: 23).

While in the case of the young US-Americans (Hayward et al. 1974), the main factor at issue was the intermediating agency of caretakers, for young Australians, Argentinians, and Mexicans (Lynch 1977) it was the freedom to roam the streets of their neighborhoods that catalyzed the production of embodied-experienced spatial knowledge. Interestingly, despite the freedom these researched young people enjoyed to wander around, they also had limited mobility—which is another determinant of young people's performative learning and physical implementation of spatial knowledge. In this regard, the case of young New Englanders living in the small town of Inavale, New England, USA (Hart 1981), during the late 1970s and early 1980s illustrates how the intermediation of caretakers led to increased mobility. Parents, exercising a non-formal agency, enriched their children's experience of their (natural/built) environment during motorized journeys, though not exclusively. According to the study's author, there was a "relationship between the level of spatial organization of an area and the type of locomotion" perceptible on "almost all maps of children under 8 years of age" (Hart 1981: 217). This condition had bearings on the non-formal learning process by which researched young people acquired information on the spatial properties of their immediately experienced surroundings. More specifically, participants' visual mappings of their journeys revealed the importance of the kind of mobility. There was a marked gap between walking or cycling (much more precise and detailed accounts) and being driven (diffuse and far less accurate descriptions). There seems to have also been an exception that defied this take on the influence of locomotion:

> The use of another child's map as an illustration suggests that the quality of the transportation mode may vary along a number of dimensions at once. Not only may kinaesthetic feedback be important in determining the degree of spatial learning during travel, but also the degree to which children's attention is drawn towards parts of an environment during travel and, probably even more important, the extent to which children are involved in decisions concerning the route to be taken (Acredolo, 1977; Herman & Siegel, 1978).
>
> (Hart 1981: 217)

Thus, as the more likely non-formal learning agents present during journeys (by any one mode of transportation), parents mediate young people's non-formal knowledge of the (natural/built) environment.

Overall, encounters and interactions young people have with adults (predominately caretakers) in spatial settings of non-formal learning can be asymmetrical and hierarchical (like in the 1970s study on conventional US playgrounds), purposely impersonal and scarce (as on the streets of Melbourne, Salta, and Toluca during the 1970s), or synergic (such as during motorized trips in and around 1970s suburban New England). Be it the production of embodied-experienced or the acquisition of mediated spatial knowledge, a study on German children growing up during the first half of the 1980s in the city of Herten (Apel et al. 1985) shows

how interactions between adults and young people may constitute an integral part of their non-formal learning processes. The fact that young people are expected to engage with a primarily adult-tailored built environment is a challenge, for much of the possibilities to roam freely, expand their mobility, and produce embodied-experienced spatial knowledge are hampered. Now, young people have the ability to directly interact with and even, symbolically and/or materially, modify the at times explicitly hindering built environment. Thus, far from furthering the spatial and social separation between the worlds of the adults and the young people, possibilities of interactions, as unbalanced and conflict-ridden as they might be, ought to be encouraged. At the same time, the study's authors sustain that spaces should be provided for self-determined play away from adult interference to promote self-organization and independence (Apel et al. 1985), such as the aforementioned adventure playgrounds (Hayward et al. 1974).

On such account, the shopping mall constitutes a noteworthy, somewhat paradoxical middle point because young people go there to elude parental control and hang out with friends and, simultaneously, are immersed in a space mainly intended for adults. Seen as a spatial setting of non-formal learning, shopping centers, as the case of the Indian teenagers frequenting malls in the city of Kochi during the 2010s illustrates (Saif 2019), lack the intermediating agency of caretakers. In addition, they may further young people's mobility (in that they get there by themselves rather than being driven). They also offer roaming leeway, once their (explicit and implicit) spatial pedagogization has been decoded (see Chapter 7). More specifically, researched adolescents visited shopping malls together with peers as a leisure activity, to shop, and/or to simply hang out. Moreover, while traversing the spaces of the mall, these Indian youths were nurturing their spatial discernment-signification, for they were reading, distinguishing, and interpreting its (pedagogized) spatial traits and qualities. In other words, they learned how to interact with the shopping mall's social environment and materiality, to assume the role of an adult customer (by consuming goods), and/or to identify and territorialize inner spaces to create and cultivate their micro-practices. As a result, they had

> the possibility of indirect and direct social interaction. Observing and learning how to navigate the space of the mall may instruct these teenagers on 'how to carry themselves properly among adults and prepares them for their future roles as adult consumers' (Kato 2009: 61).
>
> (Saif 2019: 9)

Along with this non-formal learning in the mall—proper present and future behavior in the adult world—another sampled study shows that young people may have a transgressional attitude in shopping centers, too (Ortiz et al. 2014). Likewise, in several meta-analyzed studies, malls are often highlighted as "the place to be" due to the amenities and feeling of safety they provide (Buss 1995; Matthews et al. 2000; Salvadori 2002; Malone 2013) (see also Chapter 5).

All in all, the mall, as a spatial setting of young people's non-formal learning, seems to condense their three most recurring and underlying factors and therefore

produce divergent upshots. As much as young people learn to conduct themselves according to the shopping center's explicit and implicit spatial pedagogization, they may also manage to subvert or deviate from it. As such, the mall displays how dynamic the relationship between materiality and normativity shaping the spatial settings of non-formal learning can be within a specific instance and on a particular scale—an aspect we address next in more detail.

Interplay between the materiality and normativity of spatial settings: Instances and scales of non-formal learning

Within our meta-analyzed studies, the earliest *instance* and *scale* of non-formal learning we identified was that of the various activities (from riding bikes to going up and down the stairs) young Hamburgers performed in the city's public spaces, which they used as a "training ground" (Muchow and Muchow 2012 [1935]: 212; own translation). Here, the intrinsically restrictive normativity of public spaces, which is embedded in their material orderings, seems to have been overcome and decoded to give way to an exploration of the endless possibilities the material arrangements of public spaces actually offer for young people to train. In this regard, children who grew up during the 1970s in the Garbsen (suburban and functional-residential) and Linden-Nord (central, mixed-use, and with old buildings) neighborhoods in Hanover (Tischer and Engelke 1978) experienced substantially divergent instances of non-formal learning. Each group of researched children had different chances to train in public spaces on arguably the same scale: the neighborhood. The decisive factors tipping the balance were the spatial structure, uses, and functions of each neighborhood. Accordingly, the respective material-normative interplay made it possible to experience society in different manners according to the reality to which children were exposed. For children in Garbsen:

> [The training opportunities were] [e]ssentially limited to their living area. Work processes do not take place in the district, nor does public life exist. The only other uses are concentrated in the shopping centers and convey to the children at an early age their intended role as a consumer of goods. […] In the old [neighborhood of Linden-Nord] […], there is a differentiated structure of use. Here, manageable work and life processes still take place in the children's direct sphere of experience. Crafts in the courtyards, ordering in the district, small shops, and people of all ages on the streets all day long.
>
> (Tischer and Engelke 1978: 47; own translation)

In a similar and almost concurrent manner, the non-formal learning processes of disadvantaged young Mexicans growing up in the self-built Colonia of San Agustín in Ecatepec, Mexico (Lynch 1977), exclusively unfolded within the spatial settings of their neighborhood. Moreover, unlike the case of the aforementioned Hanoverians, the interplay between the materiality (open-ended, for it resulted from a self-built process) and normativity (somewhat loose and malleable) was not a hindrance. Quite the contrary, it offered these Mexican youths a lively and busy atmosphere

with which to engage in their training. Nevertheless, the researched young people displayed a very limited knowledge of their vicinities, including other adjacent colonias. This can be attributed to constrained mobility—one of the three constant factors influencing young people's non-formal learning. Thus, these young Mexicans needed to have their non-formal learning process broadened by "'opening' the entire city to the[m] […]—by means of transport, encouragement, for example" (Lynch 1977: 24). In light of this, wider and freer mobility catalyzes young people's non-formal learning by "strengthening their budding independence, and appeasing their hunger for stimulus" (Lynch 1977: 24). This claim was taken up in at least three other meta-analyzed studies based on the nature of their research designs (Malone and Hasluck 2002) and methods (Jaramillo 2011; Milstein 2013).

Coincidentally, the research on young Australians from the suburban neighborhood of Braybrook in Melbourne (Malone and Hasluck 2002), who partook in one of the follow-up studies of Kevin Lynch's (1977) *Growing Up in Cities* in the late 1990s, shows that the spatial settings of non-formal learning processes made it possible for them to further their physical and intellectual assessment of their surroundings. More specifically, by way of an initiative of the study's authors called "Streetspace," an institutional enabling intermediary was able to launch this process. Although it "was presented as a formal curriculum subject in a school setting," the "local neighbourhood became the outdoor classroom, resource centre and library" for participants (Malone and Hasluck 2002: 103). Hence, the synergic amalgam of the researchers' mediating agency and de-formalization of the learning process by having taken it to the streets enabled these young Melbournites "to embark on a physical and intellectual exploration of their urban environment" (Malone and Hasluck 2002: 103). As a result, they wound up being "designers, educators and researchers" (Malone and Hasluck 2002: 103). Likewise, young Argentinians living in a disadvantaged barrio on the outskirts of the city of Neuquén during the early 2010s were able to determine how public a space may become (Jaramillo 2011). By using, appropriating, and taking care of their preferred public spaces, young participants in the study participated in a non-formal learning process that took place far beyond the spatial settings of their school. Compared to the previous case of young Australians, there was neither an explicit institutional framework (i.e., a school curriculum) nor a need for the contours of the non-formal learning of their barrio to be specifically framed (for example, as a pilot project). Rather, the engine was the young participants' own decision to engage with the research method used: collaborative ethnography with young people (see Milstein et al. 2011, 2019; Milstein 2015). Consequently, they realized that it was possible to define the publicness of space and thus produce spaces of representation, encounter, and social mobility by means of gradual spatial appropriation. The same type of non-formal learning (a collaborative ethnography) was experienced by young Argentinians on the same scale (the barrio) in the Villa La Florida (Buenos Aires) and Toma Norte (Neuquén) informal settlements during, respectively, the 2000s and the early 2010s (Milstein 2013). Through various ethnographic tasks—walks around their neighborhoods, interviews, and taking pictures—the participating young people documented the character of their barrios in streets, sidewalks, street

corners, plazas, etc. Afterward, they synthetized the results in a series of pictures and fragments of interviews, which reconstructed, "in a fun and conflictive continuity, their arrival to the neighborhoods, the urbanization process, the health center, the formerly crystalline and now polluted stream, and the neighbors as a community" (Milstein 2013: 73; own translation). Thus, the collaborative ethnography, seen as an instance of non-formal learning that occurred in the barrios' public spaces, gave the young participants the chance to convey their unique views on the spatiality, sociality, and historicity of their neighborhoods.

An instrumental element of the non-formal learning processes that the three abovementioned sampled studies share— which also makes their non-formality somewhat tangled—is the intermediating and enabling agency of the researchers. While this agency could be regarded as institutional and formal to a greater or lesser extent, we argue that it is their agency that makes it possible to transform streets, sidewalks, and plazas into spatial settings of non-formal learning. Moreover, since these settings deviate from, and are antithetical to, their formal-institutional equivalents, new and alternative instances are opened for young people to produce or gain spatial knowledge informally. Another case in point is that of young Mid-Western US-Americans who grew up during the early 2010s in Notre-Dame, Indiana (Burke et al. 2016). Similar to the young Australians in Melbourne and young Argentinians in Neuquén and Buenos Aires, the young people in this study produced "educational opportunity zones" out of sidewalks, public parks, or almost anywhere else, where they started off "discussions about what they value and where they find inspiration and truth" (Burke et al. 2016: 166). Furthermore, such "opportunity zones," seen as spatial settings of non-formal learning, "give them the ability to engage in critical, creative analyses of their lived experiences, and resist others' constructions of who they are" (Burke et al. 2016: 166). As a result, the researched young people created "educational and rhetorical spaces" (Burke et al. 2016: 166) while being out and about their neighborhood. Moreover, these spaces had to be understood both in relation to the participants and in how they were traversed because, "the ways in which young people move through spaces help them come to define those spaces, and one way to tap into this alternative creation of space is to walk cities with" them (Burke et al. 2016: 159). Given that the relationship between the materiality and normativity of the spatial settings was actually significantly defined by the rhetorical proficiency of the young people, singular instances—that is, the educational opportunity zones—came into being all over their neighborhood. In addition, these young US-Americans were able "to draw experiential maps for adults, while speaking about their perception of the use and abuse of the spaces around them" (Burke et al. 2016: 159). Furthermore, by means of such experiential mapping, the ambivalence of their spaces was revealed:

> A park to-be-saved (or small homes to be preserved, rented, or owned) is not just a park; a house torn down is more than just insulation and sheetrock (indeed for Kal, it was in a poignant poem, the space of memory of simple spaghetti dinners that meant "childhood" to him); and a redesigned community, rendered in architectural blocks, is not just play.
>
> (Burke et al. 2016: 152)

With regard to the specific scale (the neighborhood and its public spaces) and instance (research processes whose methods promote active engagement in it, particularly that of collaborative ethnography with young people) of these four meta-analyzed studies, it is worth underscoring the empowering effect of the non-formal learning. The participating young people learned to read—and thus reinterpret—the materiality and normativity underpinning the public spaces of their neighborhoods through a different lens. In addition, the conspicuousness of their spatial cognizance (the rhetorical and ambivalent (re)constructions of the spatiality, sociality, and historicity of their neighborhoods) and enhancement of their spatial performance (specifically, the ability to identify and seize opportunities to appropriate public spaces symbolically and materially and even to define their degree of publicness) are striking and far-reaching upshots. In our view, this also suggests that young people initially acquired mediated stocks of spatial knowledge through the agency of researchers. Arguably, this brought to the fore how much they already knew (or may have known) about the neighborhoods' public spaces (through, for example, experiential mappings or fun and conflictual portrayals). Also, the intermediary agency of researchers enabled young people to assimilate their (natural/built) environments from an alternative angle, which in turn broadened their production of *embodied-experienced* stocks of spatial knowledge.

A final instance and scale of non-formal learning we identified within our sample was the spatial settings of the shopping center. Embedded in a growing trend, malls have gained traction among researched young people across the geographic contexts of the sampled studies, traversing age, class, and gender. Young people turn to malls in search of safe and enabling personal spaces (Buss 1995, Matthews et al. 2000), to escape the control of parents (Saif 2019) and teachers (Gough 2008), to perform transgressive (micro) spatial practices of identity construction (Ortiz et al. 2014), or to simply have a taste of the world of consumption, even running the risk of being berated (and eventually thrown out) (Swart-Kruger 2002). Thus, shopping centers and spaces of consumption at large are somewhat contradictory spaces, where, we argue, supervision and the feeling of liberty and fun become two sides of the same coin for young people (see Chapters 5 and 7). Additionally, they constitute in and of themselves an intricate instance and scale of non-formal learning whose materiality and normativity form a platform that impacts young people's identity formation by offering both commercial and non-commercial (spatial) practices. Such an effect becomes apparent, in both nuanced and distinct manners, in the aforementioned studies on young Indians in Kochi (Saif 2019), Britons in the East Midlands (Matthews et al. 2000), and Spaniards in Barcelona (Ortiz et al. 2014). On this account, interviewees described malls as exciting and enticing spaces to meet with friends, socialize with peers (Matthews et al. 2000; Saif 2019), and even test the limits of what is allowed (Ortiz et al. 2014). More concretely, the Indian youths customarily, "look around the shops and enjoy the freedom of the place" (Saif 2019: 8). These young Indians were also learning to conduct themselves away from parental control and to follow established house rules. Similarly, their British counterparts frequented the malls to escape boredom (which they felt almost anywhere else), to socialize, to enter or create a group, and to acquire social status (Matthews et al. 2000: 287). In contrast, the young

Barcelonans, unlike the Indian and British youths, failed to follow established limitations pertaining in particular to the purchase of goods rather than conforming to expected "proper adult behavior" (Ortiz et al. 2014). Thus, whereas the young Indians and Britons expressed their identities with less defiance of the explicit and implicit spatial pedagogization of the shopping centers they frequented, the young Spaniards pitted theirs against the material and normative arrangement of the malls they visited. Either way, the researched young people learned to define and separate their domains by experiencing opportunities and grappling with the limitations of their spatial performance.

All in all, the most recurrent instance of non-formal learning is represented by public spaces that are turned into a training ground on the scale of the neighborhood by way of the *non-intermediated* agency of researched young people. As shown in Figure 6.2, German young people in the late 1920s and early 1930s Hamburg (Muchow and Muchow 2012 [1935]), Mexican children in 1970s Ecatepec (Lynch 1977), and German children in 1970s Hanover-Linden (Tischer and Engelke 1978) all experienced public spaces with a high degree of material open-endedness and normative looseness in their neighborhoods. Consequently, they were able to roam around, train, and muddle their way toward the production of embodied-experienced spatial knowledge relatively freely. Now, as effortless as such processes may seem, it is worth mentioning that the non-formal learning of researched young people could not surpass the confinement of the scale of the neighborhood since there was no absolute degree of material flexibility and normative malleability. They also reported having had constrained mobility, which is arguably an influencing and recurring factor of non-formal learning processes. For the Hanoverian children who grew up in the suburban and new neighborhood of Garbsen, the spatial structure and zoning impregnated in its materiality and the normative mandate to become consumers substantially hindered their training opportunities. A few decades later, and due to the agency of the researchers involved, young Australians in 1990s Melbourne (Malone and Hasluck 2002), young Argentinians in early 2010s Neuquén (Jaramillo 2011; Milstein 2013) and Buenos Aires (Milstein 2013), and young US-Americans in 2010s Notre-Dame (Burke et al. 2016) learned to skillfully grapple with a less flexible materiality and less rigid normativity that characterized the public spaces of their suburban and underprivileged neighborhoods. What initially may have been regarded as more formal learning processes ended up transforming public spaces into, for example, "educational and rhetorical spaces" (Burke et al. 2016: 166). We therefore believe the agency of the researched young people in all these sampled studies, as illustrated in Figure 6.2, potentially augments the degree of open-endedness and malleability of their learning grounds. Likewise, though without the support of an intermediating enabling agency, young Indians in Kochi, young Britons in the East Midlands, and young Spaniards in Barcelona managed to overcome the rigid and consumption-oriented normativity of their preferred shopping centers. Moreover, since they became cognizant enough to navigate them, these young people turned the malls into their identity-formation and training ground. By and large, these reviewed cases indicate how non-formal learning is substantially determined by the materiality and normativity of the spatial settings and, in specific instances, by the intermediating agency of researchers.

In addition, all these meta-analyzed studies show, though only briefly, the close relationship between non-formal learning and the socialization process of young people, their everlasting quest for autonomy (as the central goal of their non-formal learning processes), and the stigmatization of their ways of being (or non-formal learning). We elaborate on these three elements below.

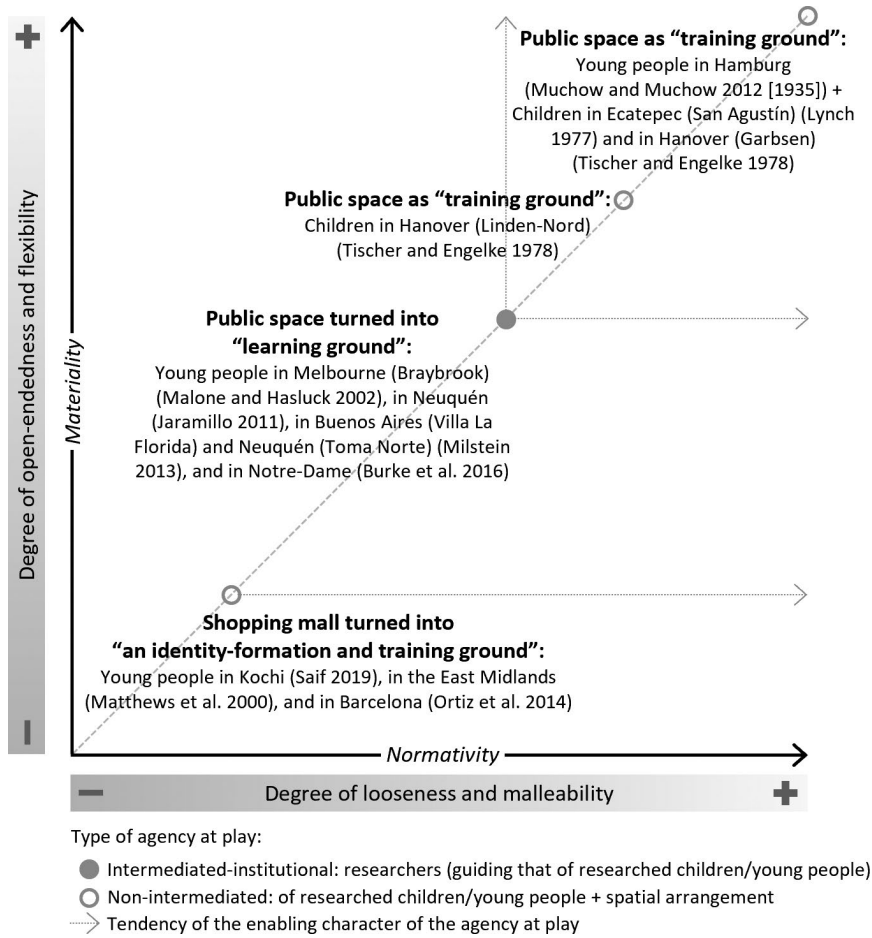

Figure 6.2 Map of the diverse instances and scales of non-formal learning according to the material-normative interplay. The diverse instances identified in the meta-analyzed empirical studies have been sorted according to (1) how open-ended and flexible the materiality is and (2) how loose and malleable the normativity is on the respective scale and the effect on the agency at play (represented by the dots). Note: The relationship between the degree of *normative looseness* and *material open-endedness* (depicted as directly proportional), as well as the positioning of the sampled studies, are only relative and therefore illustrative.

Source: Own elaboration.

Socialization in contested public spaces: Mistaken perceptions of young people's (tension-ridden) non-formal learning processes and search for autonomy

Besides constituting training grounds for young people to produce their embodied-experienced stocks of spatial knowledge, public spaces are a quintessential domain for socialization. Deemed spatial settings of non-formal learning, public spaces present young people with the structural order of society at large. The physical-material expression of the built environment is more often than not adult-oriented and, as such, also divergent from their interests, preferences, and needs. Consequently, socialization in contested public spaces entails conflict- and tension-ridden non-formal learning processes. The hardships of this induction are palpable in three meta-analyzed studies about German young people (Pfeil 1965; Tischer and Engelke 1978; Apel et al. 1985). For those growing up during the 1950s in urban settings, public spaces were where they first encountered a variety of different social functions and roles, such as "the coal merchant" and the "streetcar driver" (Pfeil 1965: 17; own translation). These young Germans became acquainted with the conditions of social life permeating their cities: that is to say, the world of adults, along with its social structures and expected behaviors while being outside navigating the streets. In this regard, the previously mentioned Hanoverians living in the suburban neighborhood of Garbsen gradually realized not only that they were out of place but also that they had almost no place at all in the world of adults. Given the rigid character of the material disposition of their neighborhood, which was the manifestation of modern urbanism principles, these children were met with a "one-dimensional world of experience" which

> ultimately forces them into the assigned ghetto of the playground. In this respect, although the[y] […] are given a complete picture of society, it is a picture of a society that leaves no room for the children to find their identity within it unless […] they learn to assert themselves together within these conflicts.
>
> (Tischer and Engelke 1978: 47; own translation)

Interestingly, young Germans from the city of Herten seem to have asserted themselves through playful, everyday engagement in and with public spaces, which, together with their (broader) natural and built surroundings, were important sites for their non-formal learning and developmental processes. More specifically, the researched children habitually played "in non-playgrounds such as yards, streets, corridors, and other areas. Play here is drastically restricted by prohibitions and hazards, but it is this area that is necessary for children's learning and development" (Apel et al. 1985: 17; own translation).

Similar to the playful engagement of young Germans in and with the public spaces of the city of Herten, young Australians (in the suburban neighborhood of Braybrook, Melbourne), Mexicans (in the self-built barrio of San Agustín, Ecatepec), and Poles (in the central neighborhood of Powisle, Warsaw) used "unprogrammed spaces near their dwellings: the local streets, the courtyards, the apartment staircases" to "talk and meet and walk about together, they play informal

pick-up games, they mess around, as the Australians would say, in a seemingly aimless fashion" (Lynch 1977: 13). While these actions may seem adrift and could thus be seen as not conforming with a learning process per se, the researched participants in their respective spatial settings were triggering a non-formal learning process steered by their own agency. Like their German counterparts in Herten, they were asserting themselves and testing the limits of their freedom.

As attractive and suitable as public spaces are for young people's socialization, given the wide array of interesting activities there, they are also fraught with tension and conflict along gender, age, and ethnic lines. For example, a follow-up study on the young inhabitants of the neighborhood of Braybrook in Melbourne (Malone and Hasluck 2002) shows how the spatial appropriation of the street was an important, yet conflict-ridden, facet of African immigrant boys' everyday life. Not without difficulties, these boys—labeled as groupies—were much savvier than others in finding ways to take over the streets and make them their own socialization domain:

> The African boys, whatever age they may be, were active street users. They frequented the streets as inclusive mixed-age groups. Older boys assumed responsibility for the young boys and socialised them in the ways of the masculine African culture. The Africans were specific about the role of the streets as a place for discussing family business and sharing the burden of being the male head of the family.
>
> (Malone and Hasluck 2002: 94)

Additionally, African boys felt at ease roaming the streets given that "[i]n situations where the home environments were very crowded, the street became a sanctuary" (Malone and Hasluck 2002: 94). Despite the important character that the space of the streets represented for them, interviewed African boys had to struggle for their presence and endure enmity and police bigotry while being there:

> Although this identity as groupies helped maintain cohesive bonds between the African families, these street meetings caused a lot of anguish for locals who saw the clusters of boys as a threat to public safety. Because of their physical presence and their predisposition to loitering on street corners, groupies were constantly under the gaze of the community and policing agencies. The police were often called to disperse them, which meant ongoing conflict.
>
> (Malone and Hasluck 2002: 94)

Hence, young people's assertion of themselves into the larger milieu of society by appropriating public spaces, such as the street, is anything but smooth and effortless. Pitted against the marked adult-centered character of public spaces, the case of homeless Indonesian young boys wandering the streets of the city of Yogyakarta (Beazley 2016) epitomizes the outright exclusion young people can experience. For these young Indonesians, public space is far more than their entryway into society; it is the cornerstone of social reproduction in their everyday lives. They

produced a sense of belonging, safety, and homeness in and through public space by linking specific locations with particular needs. To this end, they claimed spaces as their own:

> Such as the toilet and Surgawong [a bridge under which some of the researched street boys lived] [and] created a strong sense of emotional attachment and empowerment which allowed the[m] […] to look beyond the dangers of being homeless in the city and to feel safe. In effect, these spaces became a home in the public space (Arantes 1996: 86), helping a child to survive and to feel as though he belonged and existed in a world which would rather he did not.
>
> (Beazley 2016: 188)

Rather than autonomy and independence, these young homeless boys' non-formal learning process and associated production of embodied-experienced stocks of spatial knowledge are meant for survival. Unsurprisingly, their presence on the streets is not only frowned upon, but also met with harsh oppression and even brutality, for their way of life is seen as a form of deviation from the idealized norm. Thus, by means of police raids and other practices of control, these

> street boys were frequently evicted from public places and faced the daily threat of violence and abuse by agencies of the state during national cleansing operations. These operations were used as a means to discipline and educate street social life and to eradicate street hooliganism and restore the public's sense of security in major cities.
>
> (Beazley 2016: 167)

The deep-seated fear and stigmatization of young people's presence in public space were also palpable in the much milder—compared to that of the Indonesian street boys—marginalization based on socioeconomic status that working-class Taiwanese children suffered in 1960s Taipei (Schak 1972). The study demonstrates how middle-class parents closely controlled their children's access to and use of the immediate outside environment around their houses. They believed that their children's behavior and spatial practices were affected, allegedly in a negative manner, by their interaction with other children roaming the streets. More specifically, working-class children who were pejoratively referred to as "wild children" and considered an unacceptable source of learning for their children since they were "in danger of learning not only their so-called crude and uncouth ways but also their habits of playing at the expense of studying" (Schak 1972: 200). Clearly, these Taiwanese parents favored their children's formal-institutional learning and its spatial settings in order to secure their social status in the eyes of the others because people's opinions and respect were highly regarded for each member of, as well as for the entire, family. Thus, a child's "success is their success; his failure, their failure" and "it is important that he establish[es] a good reputation. This is done in two ways: by academic and financial success, and by being thought of as an upright, moral person" (Schak 1972: 200).

In a very similar manner and about three decades later, Chilean high schoolers faced similar pressure. Against the backdrop of the great expectation of obtaining higher education, these young Santiaguinos' non-formal learning processes, expressed in their more personal learning interests, and their accompanying spatial settings were delegitimized by the sweeping machinery of the formal-institutional learning apparatus. Interestingly, researched youths who had a hard time adjusting to institutional standards and fulfilling their roles counteracted them, somewhat inadvertently, by developing other much more personal interests (e.g., making music). Since such alternative activities were seen by parents and teachers alike as going against the current of institutional academic excellence, youths had to perform them at the spatial margins of the high schools they attended (Sepúlveda 2018). In other words, they resorted to tactics of escaping the adult gaze and finding spaces they could claim as their own, rather than accepting the (present and future) place within the blatantly disciplinarian societal order being forced upon them. Similarly, expatriate German teenagers who grew up immured in gated communities in Shanghai found the privacy and latitude they needed in public spaces outside the compounds (Sander 2016). Seeking to escape the surveillance of their parents and the guards, interviewees talked fondly of a convenient store, where, as one of them put it:

> There are no problems with disturbance or breach of the peace. […] You come here, bring your stuff along. Sit down on the pool tables and drink. You listen to music. Everything is allowed. […] In any case, there are no guards here. If we all meet for example at my compound, the guards pass by every two hours or so to see if we are destroying things or something like that. And here, I'd say, here you are simply free.
>
> (Sander 2016: 242)

Our findings suggest that the quest for autonomy is the most significant goal in young people's non-formal learning processes. Achieving it, as the previously reviewed meta-analyzed studies indicate in one way or another, requires fighting and resisting an adult-centered social and spatial order. Likewise, young people have to overcome the mistaken perceptions of their non-formal learning actions. From an adult standpoint, they are regarded as haphazard, flippant (and thus compromising their future), violating the public order, and deviant from appropriate and decent behavior. Moreover, given that parents (see also Chapter 7) are almost universally the ones exerting control, becoming autonomous and independent for young people invariably entails distancing themselves from them.

However, that is not necessarily always the case, as two sampled studies show. As a matter of fact, some of the young US-Americans living in the small town of Inavale, New England, during the 1970s (Hart 1981) were trained by their parents to eventually find their way around the spatial settings of their non-formal learning. For example:

> Davy does not just experience the town from a school bus or a family car, but also from the cab and from the open rear of his father's truck. The truck

> easily offers the most visibility. More important than this […] is that Davy's father shares the route he chooses to take and consciously develops skills of observation in his son while they journey to his work place together. Both of his parents talk with their children continually wherever they drive; they impart their curiosity about places.
>
> (Hart 1981: 222)

As this example illustrates, the synergic linkage between the non-formal agency (exercised by either parent) and the type of mobility is what made possible most of the non-formal learning experiences demarcated by the spatial settings of the trips parents and children took together. Furthermore, this dynamic encompassed basically any circumstance determined by the spatial learning settings of non-formal learning since,

> when not driving, Davy's father emphasizes his son's ability to discover objects. This is part of his […] educational philosophy […]: Davy was being trained to be competent at hunting, finding objects and in using them resourcefully and in finding his way about.
>
> (Hart 1981: 222)

It is then this finding his way about—that is, learning to navigate the surroundings, which constitute spatial settings of non-formal learning—that the non-institutional learning agency of these parents ultimately sought to achieve.

In a different scenario and for different reasons, children who attended school in downtown La Paz, Bolivia, during the early 2010s (Serrano 2015) were encouraged by their parents to find their way about as quickly as possible. As a result, walking-based mobility rendered them autonomous and independent—even to the point of de-mythicizing public space as unsafe for children to be on their own. Accordingly, it was of great importance for the researched children to be able to take trips by themselves:

> [Do you all walk by yourselves already?] J: I do, I go buy bread by myself. N: Me too, I sometimes walk all the way from my house to here [the school]; but nothing ever happens to me […]. W: Yes, I do; I am so independent […] I come to the school by foot […] (Girls and boys, 10–11 years old […]).
>
> (Serrano 2015: 9; own translation)

By way of such emancipatory mobility, which began at a somewhat young age (six to seven years old), these small Paceños also started to perceive the public spaces they traversed in another way, thus inscribing them with meaning. For them,

> going out by themselves entails bravery, for they are confronted with public space, which represents danger […], especially for the youngest ones. The independence of mobility […] allows children to experience, make decisions, and learn to take care of themselves, which represents a positive and important adventure and learning process.
>
> (Serrano 2015: 9; own translation)

As these two cases illustrate, parents—explicitly for young US-Americans and somewhat implicitly for young Bolivians—were actively encouraging their children to find their way about. As a result, independence and autonomy were gradually, and even rather hastily in the case of young Paceños, attained in an intermediated and instructed fashion (as opposed to self-discovery driven by the need to escape parental control). By exercising non-institutional agency, these parents provided their children with alternatives to cope with their socialization in contested public spaces, which in turn is permeated by mistaken perceptions of young people's non-formal learning practices—from simply roaming the streets or hanging out on a corner or at a convenience store to the extreme of struggling for everyday survival.

From training and discovering to struggling for autonomy: The evolution of public space as the ubiquitous embodiment of non-formal learning

The non-formal learning processes of young people seem to epitomize in public space. While the possibilities for exploration and discovery without an intermediating agency may seem incessant and unhampered, our results suggest this is not always the case. Young people are met with several challenges that hinder and limit their non-formal learning practices: notably, adult control and intricate interplays between materiality and normativity. Such paradoxical character of public space as a spatial setting of non-formal learning is striking in the case of the streets. On the one hand, there is a range of factors that make young people—in certain geographic contexts and predominantly in urban settings—perceive the streets in a negative manner (see Chapter 5). On the other hand, as early studies in both the Global South (Schak 1972; Lynch 1977) and the Global North (Muchow and Muchow 2012 [1935]; Lynch 1977; Tischer and Engelke 1978) make apparent, streets can be an integral part of young people's non-formal learning—either in the form of self-exploration or conflict-ridden and contested socialization. Somewhere in between these two poles and based on a few meta-analyzed studies (Malone and Hasluck 2002; Jaramillo 2011; Milstein 2013; Burke et al. 2016), we see the remarkable capacity of young people to turn unprogrammed public spaces—such as street corners, squares, parks, etc.—into non-formal learning grounds with the assistance of the enabling agency of the researchers involved. This particular instance is indicative of how blurry the borders between formal-institutional and non-formal learning processes can be and how both overlap in complex manners within young people's production and acquisition of spatial knowledge. Finally, it is worth noting the tactics and strategies young people come up with to open and broaden their non-formal learning processes, especially to overcome limits resulting from materiality-normativity interactions and adult control and surveillance (like in the case of shopping centers). All things considered, it is likely that public space, as the spatial setting of non-formal learning par excellence, will continue to be used as a training ground by young people and constitute their primary socialization springboard into the adult-oriented (material) world. Furthermore, novel and increasingly popular public spaces—prominently, malls—will conceivably broaden the scope of action for young people to diversify and expand their

non-formal learning processes. However, our findings also suggest that the agency of young people in both public spaces (in particular, the streets) and shopping centers can be visibly constrained by the negative spatial perception of the streets (see Chapter 5) and increasing control and surveillance of shopping malls (see Chapter 7).

Be that as it may, our meta-analysis shows that young people are quite resilient and imaginative when it comes to cultivating their spatial cognizance. One mechanism they constantly employ to that end is their spatial practices of play. In the next subsection, we shed light on the different spatial settings in which young people's spatial practices of play unfold. In so doing, we interpret their play to be undertows of their non-formal learning.

More than just fooling around: Spatial practices of play as non-formal learning

This subsection focuses on the production and acquisition of spatial knowledge by young people through their spatial practices of play. We have spotted several prominent determinants that shape them to varying degrees: ranging from playgrounds (as the ultimate child- and youth-dedicated spaces, see Chapter 7) and dissensions with parents, siblings, or other children to blatant exclusion and displacement (e.g., through increasing traffic). Moreover, these dynamics are largely reflected in interactions between the material arrangement of the spatial settings of non-formal learning and young people's spatial practices of play. Accordingly, in this subsection, we address material and temporal maximizations of play, the spatial knowledge that emerges from playing tensions (see Chapter 5), and the use and significance of the spatial knowledge young people produce and acquire through play.

Determinants of young people's play: Playing within rigid checkerboards

Young people's play—including its spaces and practices—buttresses their non-formal learning processes and thus nurtures their production of embodied-experienced (when playing is self-steered) and acquisition of mediated (when playing is intermediated by caretakers or other (older) peers) spatial knowledge. We have identified within our sample a variety of factors that influence and define the nature of play activities: the material arrangement of the spatial settings of play (e.g., playgrounds); negotiations with parents, siblings and other (older) peers; and blatant exclusion and displacement. These elements determine, by and large, the size and rules of the checkerboard in which young people perform their spatial practices of play.

As illustrated in the study on German children who grew up in a small town during the early 1990s (Hitzler 1995), playgrounds exemplify young people's seclusion in spaces (or, as it were, checkerboards) dedicated to them (see Chapter 7). More concretely, conventional playgrounds, as the study on young US-Americans living in urban areas during the late 1960s and early 1970s (Hayward et al. 1974) shows, seek to contain and control young people's play. In other words, they

are intended to make their spatial practices of play compliant. Thus, while playgrounds, seen as spatial settings of non-formal learning, seemingly foster the production of embodied-experienced spatial knowledge, their material arrangement enacts the agency of the non-formal learning process, thus mediating it to a degree. Consequently, the spatial practices of play are not independent of their immediate physical-material environment. On the contrary, "the opportunities and constraints of the physical environment may be seen to predict the majority of predominant activities" (Hayward et al. 1974: 154). Interestingly, around the same time and in a similar geographic context, the case of children from an urban neighborhood in Kansas City (Grabow and Salkind 1976) demonstrates that interactions between spatial practices of play and material arrangements do not necessarily move along a single-axis continuum. Since the nature of both play activities and the environments in which they take place can be either structured or unstructured, there can actually be four types of interplays between play and environment:

- Structured activities in structured environments (primarily watching television)
- Unstructured activities in structured environments (e.g., fence climbing)
- Structured activities in unstructured environments (e.g., playing soccer in the street)
- Unstructured activities in unstructured environments (e.g., snowball fights) (Grabow and Salkind 1976)

Against this backdrop, the embodied-experienced stocks of spatial knowledge produced by the young US-Americans mentioned above while using playgrounds (Hayward et al. 1974) resulted from structured and unstructured actions carried out in a remarkably structured environment. Hence, the material layout of playgrounds largely determines young people's spatial practices of play in that structured activities in structured environments resemble supervised play. Conversely, spatial practices of play seen as unstructured activities in unstructured environments "are most recognizable as 'pure play' as it might traditionally be known. This type of play is one that seeks an end in itself" (Grabow and Salkind 1976: 168).

The case of the young Mexican and Cambodian immigrants who grew up in the Oak Park housing complex located in the neighborhood of Fruitvale Oakland, California, during the 1990s (Salvadori 2002) illustrates how spatial appropriation and spatial practices of play correlate with and influence one another. These young Mexicans and Cambodians managed to reallocate meaning to the physicality of the housing complex. They did this to a large extent by means of their cooperative—rather than competitive—spatial practices of pure play, in which space was used at times in widely deviating manners than intrinsically intended. Thus,

> a curb can become a 'little bench' and fences can become 'monkey bars', in the same way a shopping cart can become a car running around the courtyard, dirt areas can become gardens, and swings can be built with ropes and pieces of cardboard.
>
> (Salvadori 2002: 193)

While old purposes of space are replaced by somewhat inadvertent ones in this study, as spatial practices of play shifted from competition to cooperation, researched Malaysian children living in a contemporary urban high-rise community in Bukit Cempaka (Agha et al. 2019) needed more than collaboration to initiate their pure play. For these children, "access to spaces for play is dependent upon the intersection of time, space and age hierarchy" (Agha et al. 2019: 702). Their range of play encompassed spaces within the housing compound that were not explicitly meant for that purpose, which children temporarily took over to play. The spaces these children usually turned into their transient playground were communal spaces adults would normally use: the bawah blok (void deck), the community hall, and the badminton court. More specifically, children could be seen playing in an empty part of the bawah blok during rainy days and in the absence of older neighbors. Furthermore, they utilized the community hall when adults held a meeting with the doors opened. Oddly enough,

> [w]hile […] children can claim temporal access to some of the communal spaces (bawah blok, community hall) within the compound, other communal spaces such as tarred roads and vegetable patches were clearly identified by the children as restricted play areas.
>
> (Agha et al. 2019: 700)

In our view, this seemingly contradictory attitude may have to do with the degree of explicit spatial pedagogization (see Chapter 7) to which both streets and small gardens had already been subjected.

As this study on Malaysian children illustrates, besides the material disposition of the play settings and spatial pedagogization, there are other determinants that simultaneously shape young people's spatial practices of play—for example, the transactions and trade-offs between young people and adults: notably, their parents, siblings, and other (older) peers. These dynamics are more evident in the home environment than anywhere else, which, according to the study on US-American children in Kansas City (Grabow and Salkind 1976), could be regarded as not only structured but also structuring playing activities. Additionally, we identified marked gender disparities and asymmetrical power relations. For instance, a meta-analyzed empirical case study on young Britons growing up during the 1990s (McNamee 1998) demonstrates that young people's use of and access to computers and video game consoles in their homes was imbued with gender relations and a gendered spatiality. Although the use of these devices and particular games was dominated and controlled by boys more often than not, in some exceptional instances girls managed, not without struggle, to play the video games of their choice. To that end, they had to overcome paradoxical hurdles:

> Like many of the young people in […] [the] study, he shares his computer game machine with another family member, in this case with his younger sister. What is also common is that, even though the machine is shared property, it is situated in his bedroom.
>
> (McNamee 1998: 199)

In a similar way, boys assumed responsibility for filtering which games their younger female siblings were allowed to play:

> Tom appears from Amy's description to be policing her femininity by not allowing her to play with violent games, although Amy subverts his control by playing, and enjoying a game, when he is not present. This subversion is not in any sense an act of power on Amy's part, however. Because she can only play when and at what she chooses *when her brother is not present*, she is both spatially and temporally on the margins. Girls, then, can only use domestic space on their own terms when boys are not there.
>
> (McNamee 1998: 203; italics in the original)

This gender bias in the degree of freedom girls had vis-à-vis boys in terms of deciding when, where, how, what, and with whom to play is also perceptible beyond the domestic sphere. Unbalanced gender relations are also expressed in the way parents grant permission to their children to play outside. Like their British counterparts, young Indian girls from the self-built settlement of Sathyanagar (Bannerjee and Driskell 2002) were only allowed to play near their homes (and even expected not to play at all), whereas boys were allowed to play beyond the settlement's boundaries. Thus, boys enjoyed the freedom to play on their own and all the while interact with other boys from nearby neighborhoods. In contrast, girls' play activities were "usually located closer to home; they spend time with friends and play on the nearby streets (which are void of auto traffic) or in the small niche areas between homes" (Bannerjee and Driskell 2002: 144). Although some young girls dared to defy, to a greater or lesser extent, the centripetal force their homes exerted on them and produced spaces of play within the material interstices of the settlement, "in general, girls had fewer play opportunities than boys as they were typically expected to help more around the home and given less free rein to explore areas away from the home or the homes of relatives" (Bannerjee and Driskell 2002: 144). In addition, girls were even reprimanded for simply playing and therefore had to come up with solutions: "'At home they scold me if I play. They say I am too grown-up for that. So I run off to my aunt's place. There she does not mind' (Ghousiya, age 14)" (Bannerjee and Driskell 2002: 144).

Like these young Indian girls, young Bolivian boys and girls alike from the rural villa of Churquiales, Bolivia (Punch 2000), came up with similar intuitive solutions to open up spaces and times to play. To that end, they needed to negotiate and assert their spatial practices of play within the *temporal* limitations imposed on them by their parents. Despite the fact that the use of space in their rural surroundings was

> not very restricted and enhances their physical independence from adults. […] [T]he time available for play is more limited and this encourages [them] […] to negotiate ways to make their own time for their social world of recreation. Spatiality rather than temporality is the vital component of [their] […] strategies to create their own play spaces.
>
> (Punch 2000: 58–59)

Just like the young Indian girls in Sathyanagar and young Bolivian boys and girls in Churquiales, young Germans in Dießen, Berlin, and Frankfurt, as well as young Austrians in Innsbruck (Million et al. 2019), were confronted with parental restrictions on their play and leisure activities. Yet, instead of circumventing them by negotiating or creating opportunities to play without disturbances, researched youths seem to have acknowledged and even internalized the way their preferred spatial practices of play were downplayed. More concretely, since their favorite digital gaming practices were bluntly critiqued and devalued by socially and adult-defined criteria, the interviewees' negotiation ability was palpably diminished. At the core of the issue was the fact that digital gaming activities were not seen as part of a (formal-institutional) learning environment. And, though the young participants of the study may have seen it otherwise and both enjoyed gaming and believed it has a certain learning value, they had also embraced its stigma:

> Gaming, well of course it's not exactly […] something useful. Nothing you would be proud of, I should say. […] Many people don't consider it to be a useful activity. Well, it depends. There are also people who do something like that for a living [stressed by the interviewee] if I may say so. But I only do it as a hobby and if I don't study as a result, then it's not really convenient.
>
> (Million et al. 2019: 171)

Negotiations and transactions with adults—above all, parents—are recurrent determinants of young people's spatial practices of play that not only traverse gender, class, intrafamilial dynamics, and settings (urban and rural) but also persist over time. Another limiting factor with which young people have to grapple is clashes with other (older) peers. A case in point is that of Bolivian children (Serrano 2015) whose spatial practices of play in open-air public spaces, while providing freedom and enjoyment, were also dominated by conflict and power struggles. During interviews, children pointed out hindering aspects that prevented them from playing at ease:

> [There is] a court with a park…with just boys […] when you go there, there are big boys and they don't let you play. P: and some of them when they go there [put up a sign saying] "occupied" with stones, with whatever they have at hand they put it, "don't you see?, occupied, it's occupied" and we can't [play] there at all […]. P: when you tell them, they yell back at us "shut up" (Girls […]).
>
> (Serrano 2015: 13; own translation)

Thus, according to experiences shared by children like the one above while using, occupying, and, if possible, appropriating public spaces, "power struggles occur during daily encounters among children themselves" (Serrano 2015: 13; own translation).

All things considered, young people's spatial practices of play are never completely unrestrained. Therefore, they are forced to learn how to grapple with rigid

checkerboards. Based on the reviewed meta-analyzed studies, there are diverse factors that curb and shape the spatial practices of play to varying degrees and in different manners: from the physical-material conditions of the play settings and negotiations with parents to age- and/or gender-related disputes with grown-ups and among young people themselves. Furthermore, when deemed an integral part of young people's non-formal learning, determinants of young people's spatial practices of play may translate into more or fewer possibilities for socialization and a wider or narrower (spatial) autonomy. Accordingly, the spatial practices of play affect the production and acquisition of spatial knowledge, particularly when determinants result in manifest exclusion and displacement. Despite the various boundaries that limit young people's possibilities to play freely, it is worth noting their ability to make the most of their sometimes remarkedly limited spaces and times of play. The aforementioned cases of young Bolivians in Churquiales (Punch 2000) and, particularly, young Indians living in the self-built settlement of Sathyanagar are remarkable (Bannerjee and Driskell 2002). Participants in the latter study drew on their ingenuity to optimize the scant material conditions and consequently exhibited "[c]reative and energetic play" (Bannerjee and Driskell 2002: 144). As a result, these young Indians were always able to avoid boredom:

> Never have a dull moment [and,] although their lives are filled with chores and school responsibilities, children in Sathyanagar take advantage of every spare moment to have fun, and never seemed to be at a loss for things to do. In fact, during the several month process of conducting the research activities, not a single child in Sathyanagar was heard to utter what is perhaps the most common phrase among Western youth: "I'm bored".
>
> (Bannerjee and Driskell 2002: 144)

Playing tensions: Spatial knowledge resulting from indoor-outdoor play interaction

In addition to the previously discussed determinants of young people's spatial practices of play, our findings reveal the tensions that permeate them. More concretely, we focus on the interplay between indoor and outdoor play and the resulting spatial knowledge. At issue here is young people's spatial cognizance—that is, how aware they are of and the degree to which they take advantage of the possibilities embedded in their natural and built surroundings to either produce embodied-experienced or acquire mediated stocks of spatial knowledge (see Figure 6.1 and Box 6.1). Furthermore, factors such as gender (boys versus girls), class (whether indoor play is affordable or accepted), and commodification of indoor play are significant. These aspects are also evident in how young people perceive spaces positively or negatively in terms of their playing affordance (see Chapter 5). For example, Taiwanese middle-class children during the late 1960s and early 1970s, as opposed to their working-class peers, were only allowed by their parents to play indoor or, at best, in their front or backyards. Consequently, they had a very limited number of playmates: basically, "siblings, cousins, and sometimes the offspring of their

parents' close friends" (Schak 1972: 197). Along with parental control, the size of the indoor spaces and yards also shaped their play dynamics; for instance, they mostly played tag or skipped rope. At the same time, and rather paradoxically, these children were allowed to go to school by themselves. As such, the space and time on their way to school was virtually their only possibility to experience and interact with the outside environment and, rather fleetingly, play with less restrictions. Therefore, these children's acquisition of spatial knowledge was largely intermediated by the physical-material arrangement of the (mostly indoor) spaces where they played. On the other hand, their production of spatial knowledge ranged from outdoor spatial settings with a higher degree of intermediation (namely, front and backyards) to those offering more options for self-exploration and free play (that is, spaces traversed on their way to school). In contrast, working-class children's spatial knowledge was characterized by an inverse indoor-outdoor play interaction, for they rarely, if at all, played indoors and instead played outdoors almost all the time.

A similar domestication of the spatial practices of play of middle-class Taiwanese children can be seen in the case of US-American children in Kansas City who also grew up during the 1970s (Grabow and Salkind 1976). However, unlike their Taiwanese counterparts in Taipei, the tension between indoor-outdoor play, instead of parental control (middle-class) or socioeconomic limitations (working-class), was brought about by media consumption. Moreover, the fact that their indoor play was limited by both time and space—that is, structured activities in structured environments—made it possible to control them (Grabow and Salkind 1976: 168). Accordingly, given the "disproportionate number of activities like television watching and other indoor play" (Grabow and Salkind 1976: 169), these researched children, like the middle-class Taiwanese children, seldom produced embodied-experienced spatial knowledge. However, whereas the Taiwanese children arguably cherished the scarce moments they had to engage with their unstructured outdoor environments to initiate unstructured play activities, children in Kansas City, enticed by the amenities of playing at home (notably, watching television), chose not to.

Roughly four decades later, the spatial practices of play of Malaysian children living in a gated community in Bukit Cempaka (Agha et al. 2019) during the first half of the 2010s testify to the perpetuity and intricacy of the indoor-outdoor play relationships. Similar to their middle-class Taiwanese peers, the Malaysian children were kept at home and, although they did not enjoy the luxury of having their own front or backyard, were allowed to play in the compound's common areas. Like in the case of the middle-class Taiwanese children in 1970s Taipei, indoor and outdoor play was defined considerably by physical arrangements. However, these Malaysian kids dared to appropriate certain spaces not meant for play. Furthermore, the effect of media consumption, with distinctive signs of mediatization (see Chapter 2), on their indoor play was discernible in that translocal references permeated their outdoor play. Unlike the US-American children in 1970s Kansas City, these Malaysian children combined structured play activities in structured indoor environments and unstructured play activities in unstructured outdoor environments instead of favoring one over the other. For instance, "girl participants below the ages of 10 often played the game of '*tumbuk-tumbuk bunga*' which means

'the pounding of flowers'" (Agha et al. 2019: 701; italics in the original). When asked about what they were cooking, one of the girls responded sushi. Therefore, these young girls were not only reproducing a cultural specificity and echoing a gender mandate of their geographic context (mimicking the preparation of a traditional dish), "but also drawing upon a foreign food culture in their play" (Agha et al. 2019: 701). Boys involved in the study displayed gender roles and effects of media consumption in their spatial practices of play, too. While playing soccer, associations with commercial brands (e.g., Nike and Adidas) and internationally renowned teams (such as Manchester United) popped up repeatedly. In short, the sushi allusion and brand names (gained through indoor play and vocalized in outdoor play) signal how these children were "accessing and appropriating middle class and global culture into their local play spaces and thus engaging in a shared and globalized experience of play" (Agha et al. 2019: 701). By the same token, the spatial knowledge acquired via mediatized indoor play was expressly incorporated into the spatial knowledge produced through outdoor play by incorporating translocal and global references. This study on Malaysian children also shows how the spatial knowledge resulting from indoor-outdoor play interactions (and spatial practices of play in general) is used and rendered meaningful. We address these aspects more closely in the following section.

Neither idle nor inane: The use and import of spatial knowledge produced and acquired through play

We argue that young people's spatial cognizance within the framework of their spatial practices of play accounts for one of the various instances and ways they deploy and ascribe significance to their spatial knowledge. To be sure, play indisputably holds a special relevance for young people. However, rather than focusing on its innate entertaining and fun character, we underscore how play allows young people to learn, somewhat unknowingly at times. Moreover, our findings show that two conditions are essential for spatial practices of play to be both useful and significant: lack of supervision and collectivity. Thus, this mostly involves embodied-experienced spatial knowledge as play (and its derived learning) occurs without any intermediating agency.

In the study on young Germans from the city of Herten (Apel et al. 1985), their joint and unsupervised play represented concrete learning situations. For instance, because the researched children themselves dealt directly with disputes and organized play activities, they could exercise—and thus experience—independence and self-determination. A similar ability to autonomously define collective spatial practices of play can be discerned among young Cambodian and Mexican immigrants, who, as opposed to the aforementioned German children, had to play within the housing project where they lived in 1990s Oakland, California (Salvadori 2002). In spite of this limitation, which suggests that parental supervision was hard to avoid, these young Mexicans and Cambodians managed to secure enough autonomy to control their play themselves—and in so doing interpret it distinctively. Specifically, their spatial practices of play could be seen as competitive or cooperative,

depending on the level of collaboration while playing. As a result, two distinct kinds of play emerged: organized and adventurous. Since competitive play was decoded through a rule-based language, these young Mexicans and Cambodians assimilated and internalized US-American socio-cultural attributes and customs that "encourage competition, separation between groups, and a division of roles within a group. [American] [f]ootball is an example, which appeared to be played only by Cambodian boys" (Salvadori 2002: 193). Oddly enough, while Cambodian boys seem to have incorporated central elements of the US-American way of life into their spatial practices of play, they also played, in separate groups, "marbles in the dirt areas, and alligators on the lawns" (Salvadori 2002: 193)—games that, though subject to rules, are not as competitive or hierarchical as American football. Furthermore, they somewhat resisted being fully alienated in their play, for example, by coming up with "two different versions of hopscotch, one of them being 'Cambodian hopscotch'" (Salvadori 2002: 193). This creativity to create games themselves and render them significant through their socio-cultural background also featured prominently in "[t]he second type of play, 'adventure play', [that] emphasises the interpretation and manipulation of reality" (Salvadori 2002: 193). In contrast to organized play, in which games follow preset instructions and fairly fixed roles, these young people created their own games with their own rules, which were "imitated, exchanged and transformed" (Salvadori 2002: 193).

Like the young Cambodians in Oakland, the young residents of the self-built settlement of Sathyanagar, who were always ready to play despite temporal and spatial constraints, incorporated cultural elements into their collective play (Bannerjee and Driskell 2002). Religion and specific aspects of traditional culture permeated the researched young people's everyday lives and built environment "in the form of several small temples […] as well as a small church building, and socially in a variety of community activities, festivals and holidays" (Bannerjee and Driskell 2002: 147). Interestingly, although the interviewed boys and girls "seemed aware of religious affiliations (Sathyanagar is predominantly Hindu but has Christian and Muslim families as well), their play activities and friendships make little to no distinction" (Bannerjee and Driskell 2002: 147). The irrelevance of distinguishing between confessions became even more evident in the graphical representations of the self-built settlement, which "included the church building as a prominent feature […] attributed with important meaning even though the building itself is quite small and differentiated only by the small cross over its entrance" (Bannerjee and Driskell 2002: 147). Likewise, the study participants "mentioned visiting the temples or church regularly to pray or participate in festivals and, regardless of their religion, engaged in play activities that reflected religious rituals" (Bannerjee and Driskell 2002: 147). In brief, religion and culture, rather than dividing, united and nurtured these young Indians' spatial practices of play, which indicates the importance attributed to and use made of the spatial knowledge they produced through play.

While the young Mexicans and Cambodians in Oakland and young Indians in Bangalore infused adventure or religion and culture into their spatial knowledge, young US-Americans living in an urban neighborhood of Notre-Dame, Indiana,

denoted their spatial knowledge with concrete play demands: safety and freedom (Burke et al. 2016). As one interviewee put it, referring to a park in which the study participants regularly gathered to play:

> 'I like Leeper Park because it lets you…it's a place where you can just get your energy out and run around and do whatever you want. It gives us a place to play sports and things like that'. When asked if he feels safe there, he nods. (Burke et al. 2016: 158).

The use of produced spatial knowledge (blowing off steam by running around aimlessly) and ascribed meaning (liberty) may at first glance be regarded as simply characteristic of the researched young people's cognitive and physiological development. However, spatial practices of play, when seen as a means by which young people produce spatial knowledge and use it adroitly and purposefully, can be considered a form of engaged and engaging micro-politics. In the case of these Midwestern US-Americans, a closer look reveals that, while playing autonomously in the park and thus expressing their need to do so without restraint, they were "not just playing at playing, they are playing at the serious work of forming and maintaining community" (Burke et al. 2016: 159). Furthermore, we see such spatial knowledge produced through play in order to create and maintain a community traversing all the meta-analyzed studies. Be it by creating unique versions of games (e.g., "Cambodian hopscotch") or mimicking religious rituals, young people's play is not an innocuous, neutral spatial practice. Rather, it is employed to demarcate territories (in their search for autonomy), convey preferences (avoiding adult supervision), and (somewhat unknowingly) develop their political subjectivity (pursuing a community devoid of cultural or religious divides).

As we have noted throughout this subsection, young people's spatial practices of play are not aimless. The minute the analytical standpoint is changed, a number of interpretations arise that give way to a broader and farther-reaching view on young people's play. In this section, we have stressed the powerful learning and creative force play constitutes in and of itself. Yet, determinants seem to be remarkably constant across temporal and geographic contexts in terms of gender (young girls continue to suffer direct parental control and glaring exclusion, for instance, when they attempt to take over a public space to play) and class (disadvantaged young people tend to have more freedom to play and exhibit more imagination to overcome spatial and temporal restraints). Additionally, with regard to spatial knowledge resulting from indoor-outdoor play interactions, we see the growing influence of mediatized indoor play on the production of embodied-experienced spatial knowledge through an outdoor play awash with global and translocal references. We therefore believe that mediatization, as one of the three underlying hypotheses of the re-figuration of spaces (see Chapter 2), represents a juncture in the way young people produce their spatial knowledge while playing. At the same time, allusions to faraway spaces, which are fed into young people's spatial knowledge by way of, presumably, digital technologies, illustrate the translocal character of spatial knowledge. That being said, we see a distinctive stage within the

evolution of young people's spatial knowledge that shapes their spatial practices of play. Additionally, far from being idle or inane, play has always been important and useful for young people—particularly when playing collectively and on their own, they can exploit the full learning potential of their spatial practices of play.

Finally, seen as an integral part of young people's non-formal learning processes, spatial practices of play are sometimes pitted against obligations related to formal-institutional learning and imposed duties depending on the geographic context. By and large, for the most part in the Global North, privileged young people seemingly comply with the mandates of their formal-institutional learning, which openly prioritizes it over their non-formal learning in the form of leisure (play) activities (despite recognizing the benefits of those activities). In contrast, disadvantaged young people from the Global South prove to be much more creative and skillful in finding opportunities to accommodate their preferred spatial practices of play, even though their daily routines are filled with responsibilities and chores. As such, spatial practices of play extensively intersect and overlap with duties and formal-institutional learning, which begs the question of what happens when the three of them become one and the same.

Spatial practices of duty and (non-)formal learning: Playing within the blurry interstices between school, chores, and work

In this subsection, we focus on the spatial practices young people employ to cope with duties (from household chores to helping their parents with their work), school assignments, and even remunerated work. Our findings indicate that this intricate interplay between spatial practices results in young people developing tactics to combine duties with play to maximize the prominently limited opportunities for leisure. As a consequence, the limits between the formality and non-formality of their learning processes tend to blur. For example, young Bolivians from the small rural community of Churquiales devised mechanisms to mix duty with play "so that their work is also fun and allows them the social freedom to play" (Punch 2000: 57). Similarly, though somewhat more extreme, young people living in the small self-built settlement of Sathyanagar on the outskirts of Bangalore, India, managed to complete domestic chores before going to school and, after returning home, either continued helping around the house or even took up part-time, though precarious, jobs. Any opportunity they had to play in between was used to the fullest, and they optimized their scarce material circumstances:

> Despite their material lack of play equipment, children could be found engaged in all manner of play activities: playing tag, rolling an old tire with a stick, drawing in the dirt, exploring an adjacent open space, playing Gilli Dandu (a popular game played with two sticks).
>
> (Bannerjee and Driskell 2002: 144)

While in the first case, the researched young people seem to have pulled a double duty, the second study illustrates an extreme scenario in which duty,

formal-institutional learning, and play coalesce to the point of becoming one and the same thing. Moreover, these two meta-analyzed studies suggest that young people are far from nescient and possess a refined spatial cognizance to gain the (though still notably constrained) roaming leeway needed to seize and capitalize upon the very scarce chances they have to play and amuse themselves. In doing so, they are able to gain autonomy and balance out an imposed adult lifestyle, albeit to a greater or lesser extent.

Furthermore, environmental and spatial conditions largely determine the degree to which and the manner in which spatial practices of duty, formal-institutional learning, and leisure intersect. For example, the abovementioned young Bolivians made the most of what they considered to be boring tasks, such as keeping an eye on animals while grazing, by singing out loud, for they realized they had wide-open spaces at their disposal (Punch 2000). Hence, although young people may be heavily charged with responsibilities, their practices suggest that their childishness resists fully adopting a premature adulthood. Interestingly, children who grew up on farms in rural Canada, given the conspicuous spatial overlap between their homes and their parents' workplace, gained (at times, quite detailed) knowledge of the operative and logistic dimensions of farming. As one 12-year-old interviewee pointed out: "I guess it's important, like it teaches you stuff. I've learnt a lot. Like how to milk cows and everything. Probably others don't get that experience. And I see a lot. New life and births" (Cummins 2009: 76). Unlike their Bolivian peers, these Canadian children embraced "various roles […] to learn work-related tasks, [which in turn give] value to their work, make them responsible and enhance a sense of commitment" (Cummins 2009: 70). Hence, far from contesting the adulthood they were being conferred, the researched children were subject to a spatial restraint that eventually translated into limited mobility (farming defined much, but not all, of their everyday lives). However, well aware of the play options offered by their spatial surroundings, they also enjoyed greater leeway to play (presumably because they were not asked to help that much with household chores).

Thus, the scenario in which young people mostly acquire and accumulate stocks of spatial knowledge circumvents the passage from childhood to adulthood. Nevertheless, in Cindi Katz's (2004) longitudinal analysis of children growing up in the village of Howa, Sudan, the opposite situation can be observed. While at the beginning of fieldwork during the 1980s—though children completed tasks playfully like their Bolivian peers—it was almost impossible to differentiate between their spatial practices of duty and play, a distinction started to arise. However, it was not related to children's resistance to accept a premature adult way of life. Instead, it was arguably the spatial changes in their immediate surroundings, triggered by the restructuring caused by the transition from a subsistence farming model to one of extensive production, that might have led to a clearer separation between their spatial practices of duty and play.

Moreover, in the previously mentioned studies by Bannerjee and Driskell (2002) and Cummins (2009), young people were constantly exposed to, and thus learned a great deal from, their parents' jobs. Consequently, both the Canadian children and Indian youths eventually ended up reproducing dynamics of both division of labor

and (specifically the young people in Sathyanagar) precarious work. For example, while a 12-year-old boy in rural Canada was caught between routine farming tasks (seen as a non-formal learning process), playing outside, and attending school in an urban center, a youth of the same age in India had the following experience:

> [He] [h]elps his mother at their greengrocer's shop, while some other children work in a factory in the local area making potato chips. An 11 year old [sic] boy works after school hours in a tailor's shop sewing buttons on shirts, earning 25 paise (about US$ 0.0058) for every button. Many children also accompany their parents to the workplace during the school summer vacation and are employed for odd jobs on a short-term basis.
>
> (Bannerjee and Driskell 2002: 143)

It is worth noting that the Canadian children remained fairly conscious of the spatial and temporal boundaries between farming duties, play activities, and school tasks, while work for Sathyanagar's young residents seemed to have been almost completely internalized and integrated into their daily spatial practices so much so "that many did not mention it in their initial interviews when asked 'Do you work for anybody here in Sathyanagar or anywhere else?'" (Bannerjee and Driskell 2002: 143). In addition, unlike the Sudanese children in Howa (Katz 2004), the economic surge in Bangalore, driven by the skyrocketing growth of the technology sector, did not have much of an impact on their daily (present and, most likely, future) lives in general or on the distinction between their practices of play, duty, and formal-institutional learning.

All things considered, the meta-analyzed studies referenced in this subsection show how school assignments, household chores, and even remunerated jobs mix together, in some cases by way of, and in others alongside, play activities. Also, the researched young people appear to be mostly able to distinguish between formal-institutional (school assignments) and non-formal (fundamentally leisure) activities both in temporal and spatial terms. It was work, for those who had jobs, that was more difficult to separate from and/or balance with other everyday activities. Additionally, there are pervasive and sharp differences with regard to gender. Across all studies, working responsibilities and household chores mirror preconceived ideas of what boys and girls ought to do. In summary, practices of duty and (non-)formal learning are intimately and intricately interlaced. They even appear to be two sides of the same coin in that duty entails non-formal learning (which may conflict with formal-institutional learning)—along the lines of "my duty is to learn my duty." Notwithstanding, young people also manage to find ways to play and simply have fun, for example, by incorporating play into their imposed obligations. At the same time, when duty and non-formal learning are combined (for instance, on the Canadian farms) or when (remunerated) work is internalized and thus normalized (as with the young Indians in Sathyanagar and, initially, the Sudanese in Howa), the spatial practices of duty and (non-)formal learning reflect an undeserved and hastened adulthood. Moreover, young people's production or acquisition of spatial knowledge is consequently permeated with the complexity that emerges from the intersection

of their spatial practices of duty and (non-)formal learning. As a result, rather than based on a clearly defined sequence of spaces, their everyday spatialities (see also Chapter 4) translate into a diffuse overlap of spaces of formal-institutional learning (namely, the school), duty-bound non-formal learning (e.g., domestic chores), and paid work (e.g., sweatshops). Furthermore, young people sometimes have to adapt their spatial practices of play to some of these spaces due to the very little time they have and/or the lack of spaces intended for playing. Incidentally, a similar intricacy is perceptible in the way young people spatially structure their everyday lives due to the growing incursion of virtual spaces as an integral part thereof (see Chapter 4). In the next and final sub-section, we address what virtual spaces, mediated by information and communication technologies (ICTs), mean for young people as relatively novel spatial settings of their non-formal learning.

The sky's the limit: Virtual spaces as fluid spatial settings of non-formal learning

As a result of the rapid evolution and increasing dissemination of ICTs, a quite distinguishing variation of spatial settings of non-formal learning has emerged: virtual spaces (see also Chapter 4). Offering young people ample room to maneuver, the meta-analyzed studies reveal the use of online-offline interactions to produce and acquire spatial knowledge online and then implement it in offline situations. In this section, we look into alignments and intended disconnections between interests and sociocultural trends and the spatial knowledge of young people—illustrating, among other things, the ability to defy head-on well-established conventions. Moreover, the fluidity of virtual spatial settings of non-formal learning makes it possible to deploy in-situ and remote catalysts of spatial knowledge, which reveals marked contrasts and nuances between young people's online and offline spatial realities (reflected, for example, in their identity formation).

Within our sample, the earliest traces of virtual spaces as spatial settings of non-formal learning date back to the study on young Britons growing up during the second half of the 1990s (Holloway and Valentine 2001). For these users of virtual spaces, the spatial knowledge they acquired online represented an important asset to reinforce their presence within the social networks embedded in their both virtual and concrete realities. For instance, staying up to date—especially regarding US-American movies, music, sports, and the like—was valuable for the researched participants to secure social standing among their peers, for they could then "impress friends and thus gain social currency in off-line relationships" (Holloway and Valentine 2001: 157). Furthermore, while some of these young Britons turned to the Internet to learn more about foreign countries and cultures that were less present in the traditional media (radio, television, and magazines), most of the interviewees aligned their interests and hobbies (sports, movies, and music) with popular US-American trends. Thus, the consumption of virtual spaces, which these young Britons used to acquire spatial knowledge from geographically distant locations, was dominated by US-American culture and constituted "an integral feature of most […] ICT usage" (Holloway and Valentine 2001: 158). Seeing as the

United States was positioned as an online and offline cultural leader, it was deemed "more up-to-date and better than Britain" (Holloway and Valentine 2001: 157). As a consequence, chatrooms and other similar forms of online communication were actively sought out and used to learn about US-American counterparts. This was regarded as more exciting than interacting (either online or offline) with other young Britons. As one interviewed girl put it: "[I]t's not really worth talking to someone who lives in Birmingham" (Holloway and Valentine 2001: 157).

Whereas communication and exchange with US-American peers were central to these Britons, the situation was somewhat reversed for young Germans living in Hanover during the 2000s (Seggern et al. 2009). As a matter of fact, rather than perceiving Internet use as a means of accessing a virtual space with an intrinsic quality, these youths saw it as an enabler that extended their offline practices into the virtual world. As such, Internet was primarily used to stay in touch with others via email or chat and almost never to make new acquaintances (irrespective of their geographic location). Furthermore, like their British peers, Internet constituted a wider source of information for these young Germans. However, participants did not regard it as a mesmerizing novelty permeating their daily routines and rhythms: "The Internet does not seem to offer the[se] young people any new or different 'spaces' or 'worlds' (in the sense of the 'virtual 3D online world' Second Life, Second World)" (Seggern et al. 2009: 150). Interestingly, while German youths in Hanover, unlike their British peers, seem to not have associated their offline interests with virtual spaces (particularly their communicative potential), young Portuguese from urban neighborhoods in Lisbon, Porto, and Viseu believed online communication to be much more advantageous (Almeida et al. 2014). More specifically, under certain circumstances, interviewees stated that it was easier to convey emotional content—be it romantic or quarrelsome—online due to its disembodied nature. As one girl explained: "The things we are embarrassed to say in person, we can say it there [on Messenger], with less embarrassment, because we can't see the other person's face" (Almeida et al. 2014: 11).

It is noteworthy how young people take advantage of online-offline interactions and accordingly match their offline interests with online trends, which has bearings on their identity formation. From the three cases above, the identities of the British and Portuguese youths, as opposed to that of their Germans counterparts, seem to have been shaped more conspicuously by the spatial knowledge they acquired through virtual spaces. British youths were clearly subject to the Americanization that dominated their preferences and behaviors, even to the point of downplaying their own Britishness. The study on young Portuguese reveals the role played by virtual spaces within a manifold landscape of spaces since

> [t]heir identity thus appears to be constructed not in relation to a single, one-dimensional place, but by means of migratory movements in, out and around multiple and co-existing spaces. Spatial mobility, the association of real/virtual space with movement promoted by technology use, is a main feature of contemporary childhood [and youth].
>
> (Almeida et al. 2014: 15)

Hence, the identity formation of young people is increasingly influenced by the interplay between the spatial knowledge acquired online and produced offline in that the constitution of online virtual spaces is not placeless after all. On the contrary, the ways young people "use on-line space to complement and extend their off-line interests also reveals the importance of place-routed cultures in on-line space" (Holloway and Valentine 2001: 156). In such place-routed cultures, young Britons incorporated US-American references as a remote catalyst of their embodied-experienced spatial knowledge and, at the same time, used virtual spaces to "search for information about, and communicate with people who share their place-routed culture" (Holloway and Valentine 2001: 158). For example, some of the researched youths informed themselves about local sport teams, while others sought British peers to discuss British TV, music, magazines, or books because—as one interviewee explained—"there is a British thing that you know, you can't explain to foreigners" (Holloway and Valentine 2001: 158). This study on young Britons illustrates how complex identity formation processes are, for their identity was notably traversed by a "hybrid American culture in Britain" (Holloway and Valentine 2001: 157) pitted against an ingrained Britishness.

A similar paradox can be discerned in the identity formation of Peruvian youths who grew up in settlements located on the periphery of the city of Lima in the first half of the 2010s (Arends and Hordijk 2016). A key element that marked a turning point in these youths' identity formation and left an imprint on the way they took full advantage of the online-offline interface was the explosion of social network sites (SNS). More specifically, these young people claimed identities and experimented with dominant cultural (gender) roles in the virtual spaces of SNS in a way that would not have been acceptable in physical public spaces. For instance:

> Karina (17) serves here to illustrate a trend that has been observed among a number of the young women. Karina regularly posts "sexy" photos of herself on her Facebook page. Girls publishing pictures of themselves scantily dressed, with a provocative tongue out of their mouth or in sexual poses, can be interpreted as "bad girl" behavior. However, among these photos the following comment posted by Karina stands out: "Even though my parents are at a birthday party of my uncle, I'm not going out because I am a good girl […]". This shows that girls can play out different roles that might be interpreted as "bad girl" behavior (the online pictures) while still self-presenting as the "good girl" in offline society. Seemingly contradictory "good girl" and "bad girl" behaviors are at play.
>
> (Arends and Hordijk 2016: 240)

This example illustrates how fluid virtual spaces are and the ample room to maneuver they therefore offer young people. Interestingly, these young Peruvian girls, unlike the aforementioned young Britons, intentionally and openly detach their online activities and interests from their habitual and socially expected offline behavior. Moreover, we see here a special ability to develop a twofold spatial identity into which two different senses of belonging are channeled since these young

girls ascribe distinct meaning to virtual (where being "a bad girl" is to be disruptive) and physical (where they fit in as a "good girl") spaces. Within this same study, and underscoring a gender division, an in-situ catalyzer of spatial knowledge is shown in the way researched young people claimed their identity. Whereas girls apparently did not disclose any specific reference to physical spaces (save for their homes, where they portrayed their "good girl" behavior), young Peruvians boys explicitly integrated physical locations into their virtual spaces. For example, uploading photos and recordings with georeferences or mentioning the name of the neighborhood were some of the tactics used for acts that transpired in physical space to "become visible for others to see at any place and time [online]" (Arends and Hordijk 2016: 242). The territorial claims of youth gangs represent a specific example, who filmed their fights with rival gangs and displayed them publicly online later. Thus, for these young Peruvian boys "[m]entioning physical places while making identity claims in virtual space proves important to them and shows that locality is central to their identity" (Arends and Hordijk 2016: 241).

Moreover, while in the cases of young Britons, Germans, Portuguese, and Peruvians there are no allusions to virtual spaces as continuations or extensions of their formal-institutional learning, a study on young Germans and Austrians (Million et al. 2019) shows how virtual spaces make up for the shortcomings of offline spatial settings and practices of formal-institutional learning. For example, the interviewees in this study mentioned YouTube tutorials as a means to acquire and further develop skills that are not taught in their formal-institutional learning environment. As such, virtual spaces compensated for such flaws. And, when compared to typical spatial settings of formal-institutional learning, these young Germans and Austrians appreciated their formal-institutional learning in virtual spaces, for it was considered more independent, self-organized, individually designed, and experiential (Million et al. 2019). Be that as it may, virtual spaces have long since been used to complement (and even replace) conventional forms of formal-institutional learning: for instance, what is commonly referred to in the literature as educational technology. The advent of the COVID-19 pandemic represents a sharp turning point—especially during lockdowns—after which virtual spatial settings of formal-institutional learning have even supplanted their physical-material counterparts in their entirety. In addition, young people who continued their formal-institutional learning online saw their everyday spatialities—and thus the arenas and agencies of both their formal-institutional and non-formal learning—confined and reduced to the space of their homes. Although there is still much to be researched about this phenomenon, the debate has already started (see Million 2021).

Overall, virtual spaces appear to constitute limitless spatial settings of young people's non-formal learning (and perhaps an enhancement of their formal-institutional learning): all the more so when they skillfully use online-offline transitions and as access to the Internet becomes much more widespread, faster, and thus natural. From young Britons avidly producing online content and thus actively promoting US-Americanized culture, which shows that they were "not simply passive dupes of a form of American cultural imperialism, but […] both complicit with and active in the (re)circulation of the culture of the hegemonic power" (Holloway and

Valentine 2001: 157), to the young Portuguese taking precautions such as restricting "access to their virtual network to members of their offline network" (Almeida et al. 2014: 13), there is a sea of non-formal learning opportunities that is growing constantly and exponentially. Against this backdrop, the question of whether or not virtual spaces actually prove that "the sky's the limit" remains both pertinent and very much open-ended.

From physical public spaces to virtual spaces: The evolution of the spatial settings of non-formal learning

As illustrated in this final section, young people's non-formal learning takes place in a myriad of spatial settings that promote their spatial cognizance in various ways: for example, performative or playful learning. As a whole, the discussion we have outlined seems to move between two poles in temporal terms: ubiquitous public spaces and novel and enticing virtual spaces. With regard to the evolution of young people's spatial knowledge, we see that public spaces continue to be used as a training ground to produce embodied-experienced spatial knowledge. However, young people's training is being increasingly met with restrictions and control (see Chapter 7) and a series of factors have rendered the spatial perception of particular public spaces (notably, the streets) negative (see Chapter 5). Additionally, adult control, markedly reduced mobility, and limited freedom to roam consistently appear within our sample as hindering aspects of wider performative learning among young people in public spaces. At the same time, the degree of hindrance varies along gender and class lines. Likewise, young people's socialization, seen as a non-formal learning process, throughout time, geographic contexts, and in urban settings in particular steadily unfolds in contested public spaces. Moreover, the spatial knowledge young people produce and acquire by means of their social intercourse in public spaces is applied in search of greater leeway. Moreover, the explosion of virtual spaces as spatial settings of non-formal learning has had by far the most accentuated impact on the evolution of young people's spatial knowledge. Due to the capacity to fluidly move from an online to an offline setting, thus shaping their identities, young people are now presented with seemingly unrestricted opportunities to unravel their non-formal learning processes. However, the extent to which evident (parental control) and concealed (digital tracking) hurdles could potentially be circumvented using virtual spaces is yet to be seen—for instance, in the quest for more autonomy.

Furthermore, the spatial practices and spaces of play, deemed actions and spatial settings of non-formal learning, constitute a constant instance in which young people, in perhaps the most characteristic way, use and render meaningful their spatial knowledge. This ability stands out prominently when young people are met with the challenge of balancing their spatial practices of duty (from domestic chores to remunerated work), (non-)formal learning, and play. At the same time, young people's play is frowned upon more often than not and, in worst-case scenarios, visibly limited or even prohibited—a situation that consistently impacts young girls irrespective of class or geographic context. Consequently, the embodied-experienced

spatial knowledge that young people produce through play overlaps with the knowledge produced through spatial practices of duty and, especially for young girls, is circumscribed by a handful of proximate spaces. On the other hand, we have noticed in our meta-analysis that spatial references to geographically distant locations, in the frame of the tensions resulting from indoor-outdoor play interactions, are progressively fed into young people's spatial knowledge by means of expanding mediatization. Similarly, what we refer to as remote catalysts articulated through virtual spaces are gradually shaping young people's mediated spatial knowledge.

Similar to their training and socialization in public spaces, young people persistently struggle with adult supervision and control and must make a trade-off to play at will. Interestingly, another constant aspect that shapes young people's non-formal learning is the physical arrangement of the spatial settings where they both play and socialize. The capacity of young people to repeatedly decode not only the materiality but also the normativity that permeates the diverse instances and scales of their non-formal learning is remarkable. From public spaces to shopping malls, young people are able to turn spatial settings into their own training (without an intermediating agency) and learning (with the aid of an intermediating agency) grounds. Moreover, young people progressively make malls their domains for identity formation, whose rise in popularity marks a juncture in their spatial knowledge evolution.

As we have shown, non-formal learning processes appear to unfold rather consistently according to the characteristics of their respective spatial settings when they take place in physical public space, which can be seen in young people's performative learning, for example. By contrast, non-formal learning processes have undergone rapid changes in virtual spaces, as innovative spatial settings (for instance, when young people connect in-situ and remote catalysts of their spatial knowledge by deftly managing online-offline interactions).

Refigured spatial knowledge: Tracing the development of learning arenas and agencies

In this chapter, we have delved into the various ways young people produce embodied-experienced and acquire mediated spatial knowledge. To that end, we sought within our sample specific circumstances that delimit areas of learning activity where spatial knowledge was being produced or acquired. Simultaneously, we looked for the instrumentalities that activated and underpinned such areas of activity. In other words, we traced both the learning arenas and agencies of young people's spatial knowledge. Two driving conceptual lenses were integral in this quest: an objective view of the world and learning processes. By understanding that the production and acquisition of spatial knowledge result from formal-institutional and non-formal learning processes, we now emphasize continuities and marked changes that have shaped its evolution over the past five decades. In so doing, we turn to the refiguration of spaces (i.e., the transformations the spatial organization of society has been experiencing since the late 1960s) in which young

people's learning processes and development of an objective view of the world are very much entrenched (see Chapter 2).

Against this backdrop, our meta-interpretations of sampled studies (see Chapter 3) reveal how modifications in the form of production, economic boosts, and socio-political transitions have affected young people's production and acquisition of spatial knowledge in a number of ways and to different extents. Moreover, our meta-analysis identifies turning points in geographic contexts of both the Global South and North. For instance, in rural Sudan, there was a transition from acquiring stocks through the intermediating agency of parents, who passed on to their children the tasks of an agricultural economy of subsistence, to that of schoolteachers, who imparted spatial knowledge in the form of cartography. It should be noted how this entailed a transition from non-formal to formal-institutional learning. Consequently, the spatial knowledge acquired changed from experiential to abstract (see Chapter 2). In contrast, rapid economic and social modifications may also take place without having much influence on the way young people produce and acquire spatial knowledge. A case in point is the economic boom that took place in the Indian city of Bangalore during the 1980s and 1990s, whose effects did not visibly impact the non-formal learning processes and arenas of disadvantaged young Indians. By and large, they remained very much characterized by harsh and demanding household chores and low-earning jobs, with severely limited possibilities for leisure and simple childish distraction in between. In this regard, it is worth pointing out poor young people's resilience and creativity to activate their agencies and transform arenas of spatial knowledge dominated by the logic of imposed duties into playful instances of spatial knowledge production. Another conspicuous spatial reorganization of society was triggered by the fall of the Iron Curtain in Europe at the end of the Cold War in the early 1990s. Consequently, in the city of Warsaw, for example, the sudden political, economic, and cultural transition from communism to capitalism gave way to new arenas of spatial knowledge.

Moreover, at around the time the global order no longer followed the capitalism-communism divide, privileged Western young people began charging their spatial knowledge with Americanization by way of expanding mediatization—one of the three empirical manifestations of the refiguration of spaces—quite actively at a rapid pace. With widespread access to the Internet, virtual spaces—from chatrooms and social networks to content-production and exchange platforms—constitute the most striking turning point by far in learning arenas and agencies of spatial knowledge. Virtual spaces, articulating extensive mediatization that is still unfolding, have significantly altered (and continue to change) the course of the translocalization to which the production and acquisition of spatial knowledge is subjected. This can be attributed to the multiplicity of both virtual and physical spaces that are coupled together and becoming more present throughout the arenas and agencies of learning processes.

Our findings suggest that alongside such junctures, arenas of non-formal learning processes in particular remain relevant and make the production and acquisition of spatial knowledge rather stable. At the same time, the singularities of the geographic contexts, socioeconomic background, and times of the sampled studies

are indicative of the heterogeneity that impregnates the evolution of the spatial knowledge of young people at the micro level. A prime example is public spaces: in particular, the streets. Although the streets have been affected by increased traffic, the stigmatization of the presence of young people there, and the competition posed by the growing popularity of shopping centers among young people, they are still (and will likely continue to be) relevant and attuned to young people's needs, preferences, and interests. As such, although streets are ever-changing, fraught with factors that make young people perceive them negatively (see Chapter 5), and progressively subject to conspicuous social control and surveillance (see Chapter 7), they constitute a main non-formal learning arena, which young people can turn into their socialization domain.

Similarly, the home is a central arena of young people's non-formal production and acquisition of spatial knowledge for it is an anchor within their everyday spatialities (see Chapter 4) and holds a steady significance that, like the streets, has experienced transformations. For one thing, in several meta-analyzed studies, the home was not as meaningful as would have been expected as a space to perform spatial practices of play—even to the point that young people complain about having to stay at home or criticize living conditions (e.g., overcrowding) (see Chapter 5). In addition, while being at home young people are encountered with several hurdles—notably, parental control—to exercise their agency autonomously and thus govern the arenas of their spatial knowledge production and acquisition. Be that as it may, the sampled studies are also indicative of the acceptance the home may have in terms of the affordances it offers young people in the Global North and well-off Global South: from putting them at their ease to providing them with a gateway into distant socio-spatial realities (through mediatizing devices like television and computers and access to the Internet). Additionally, the home allows arenas of formal-institutional learning to come into being and even supersede those of non-formal learning. As a consequence, young people spend considerable amounts of time at home studying in order to live up to their parents' expectations (see Chapters 5 and 7).

Furthermore, our findings suggest that the school, as the quintessential arena of formal-institutional learning, is both physically and symbolically important for young people's production and acquisition of spatial knowledge. It is striking how, in addition to being a mechanism of social mobility, the school can constitute a favorite spot or a safety niche, particularly for disadvantaged young people within a broader landscape of hostile and insecure everyday spaces (see Chapter 5). Given the formal-institutional character of the school as an arena for spatial knowledge production and acquisition, non-formal learning processes may take place there, too. Overall, spatial and temporal overlaps between formal-institutional and non-formal learning that materialize in both young people's homes and schools demonstrate that divides between arenas and agencies are increasingly blurred. Incidentally, the collision between arenas of formal-institutional and non-formal learning in the space of the home has climaxed under the ongoing COVID-19 pandemic. While the implications of the pandemic fall outside the scope and nature of this research (see Chapter 3), at the time of writing we deem the spatial concentration and

intersections of times and spaces of formal-institutional and non-formal learning in domestic spheres to hold great potential for future research. This begs the question of what happens when the spaces and times of formal-institutional and non-formal learning become one and the same and what this implies for the production and acquisition of spatial knowledge. As an aside, our meta-analysis reveals a somewhat narrow understanding and formal-institutional teaching of spatial knowledge, which hinders the potential explorations of the inputs a different teaching approach might offer (e.g., those explained in the study by Million et al. 2019). Here, a less mechanical learning method of spatial knowledge (for instance, in the way cartography is taught) would be central to fostering young people's spatial knowledge through formal-institutional learning in unexplored domains (environmental education, as a curricular subject, may play a vital role as well). In light of the growing number of young people who have officially enrolled in school over the past five decades, this aspect deserves closer consideration.

Returning to the learning arenas and agencies of spatial knowledge founded on non-formal learning processes, we identified two growing trends in our meta-analysis. On the one hand, while virtual spaces can enable young people to explore, discover, and even produce their own arenas of spatial knowledge, they also pose certain risks. For example, they may fuel cycles of violence that eventually translate into actual actions in physical public space (for instance, when youth gangs clash with each other to claim their territories). Hence, as arenas of non-formal learning, virtual spaces appear to be a double-edged sword, whose upshots merit further empirical investigation—especially online-offline interactions and interfaces. On the other hand, the spectrum of mechanisms that mediate and monitor non-formal learning arenas is widening. For example, when young people autonomously exercise their agency to produce embodied-experienced spatial knowledge in public spaces, they are increasingly met with controlling and both subtle and blatant spatial limitations. Here, an illustrative case is shopping malls, whose materiality-normativity can at times be decoded and defied by young people, but at others may prove too overarching given its refined level of spatial pedagogization (see Chapter 7). The complexity that shapes malls stems from the polycontexturalization they have undergone. More specifically, in shopping malls, there are various spatial logics at play interacting with one another: that of surveillance systems and house rules (normativity) and that of young people, who, by communicating via digital devices, circumvent surveillance and house rules and thus strategically navigate the mall's materiality. In other words, while visiting shopping centers, young people are immersed in a combination of diverse spaces, scales, and spatial logics and consequently address a heterogenous multiplicity of spaces through their actions (see Chapter 2). Broadly speaking, our meta-analysis shows that control and surveillance—in malls and elsewhere—have diversified over the course of time and are no longer chiefly parental. In addition to parents and neighbors, state (police) and private (security firms) actors have taken on a noticeably more important role (see Chapter 7). Therefore, spaces and times of performative non-formal learning and the physical implementation of spatial knowledge seem to be on the threshold of decline. Accordingly, less autonomous "training grounds" and

more and different types of trainers (parents, teachers, police, and security men) and rules are shifting aspects that gradually frame young people's spatial knowledge production and acquisition. Interestingly enough, whereas the materiality-normativity of physical spatial settings of non-formal learning has become harder to deal with, young people have encountered and begun to master a new training ground: virtual spaces.

As a whole, there are a myriad of factors and instances in which the refiguration of the production and acquisition of young people's spatial knowledge can be interpreted, including effects of growing mediatization (from watching television to surfing the web) on their socialization; the incursion of the shopping mall as a polycontextural spatial setting of non-formal learning; the translocal spatial references that permeate the spatial practices of play. All this attests to the fact that the learning arenas and agencies of spatial knowledge have evolved (and are likely to continue evolving) in step with the rearrangements the spatial and social organization of society has undergone from the seventies (and even earlier) onward. Consequently, the production and acquisition of spatial knowledge have become more mediatized, translocal, and polycontextural—the empirical underpinnings of the refiguration of spaces are not mutually exclusive (see Chapter 2). In other words, young people's spatial knowledge has been refigured inasmuch as their objective view of the world and learning processes are entrenched in, and thus sensitive to, the manifold ways the refiguration of spaces manifests itself in geographic contexts across the whole world.

7 The domestication of young people's spatial knowledge

Social control and spatial pedagogization

Taming spaces and times: Socially holding sway over and spatially and designedly instructing young people

The effects of control, regulation, and adult influence, as well as parental guidelines and restrictions, on young people's spatial practices permeate studies about spaces of childhood and youth. Among other aspects, young people's self-determined and unsupervised spatial practices—for example, their independent mobility—are restricted in different geographic contexts across the world. Within our *meta-analysis*, this became clear from very early on. Therefore, in this last empirical chapter, we focus on adults' attempts to spatially restrict young people and examine how this, in turn, has influenced their production and acquisition of stocks of spatial knowledge. To that end, our findings are grounded in a twofold theoretical framework whose components are closely connected: *social control* and *spatial pedagogization*.

While the term social control is used rather ambiguously in the literature, it is commonly referred to as "the processes and mechanisms used by a society in an effort to make its members behave in ways that are regarded favorably within the framework of that society" (Klimke et al. 2020: 419; own translation). Using this definition as a starting point, we identified within our sample diverse ways in which adults exert control over young people's spatial practices (see Box 7.1). The notion of spatial pedagogization is based on and expands on the term *pedagogization*. In the field of educational sciences, pedagogization is generally used to

> indicate the steady expansion and increased depth of educational action during the nineteenth and particularly the twentieth centuries […] [which] not only concerned the increase in the number of child-raising and educational governmental bodies and the greater range of child-raising and educational processes but also encompassed the ever-increasing central role of the pedagogical in the society.
>
> (Depaepe et al. 2008: 14–15)

It is worth noting that this growing pedagogization, as we argued in the previous chapter, unfolds well beyond the spatial settings of formal-institutional learning

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processes (see Chapter 6). Moreover, it is not restricted to the domains of parenting and childcare either, such as the home and neighborhood. On the contrary, the pedagogical cuts across all strata of society, and space is pivotal to the further advancement of pedagogization. In this sense, spatial pedagogization denotes the spatialization of the rationales of pedagogization as it influences social spaces, their materiality and form, as well as the social activities and processes in space.

A succinct and illustrative example is the design of conventional playgrounds whose materiality and normativity largely prescribe the production and acquisition of spatial knowledge (see Chapter 6). All too often, designers and planners envision, design, and ultimately arrange playgrounds and their equipment for users to interact with them, and thereby behave, in specific intended manners. In other words, swings are meant for swinging as much as slides are meant for sliding. Consequently, practices (and behaviors) considered meaningful and appropriate are encouraged, while those considered unsuitable and even deviant are outright hindered from an adult-centric and supposedly expert perspective. Moreover, given that design and planning decisions shaping the physical arrangements of playgrounds are founded on pedagogic considerations, we deem (subtle and obvious) intended uses embedded in design and planning schemes to be the embodiment of their spatial pedagogization. Hence, design and planning practice is instrumental in materializing playgrounds' underlying spatial pedagogization. Furthermore, playgrounds are one of many examples of *child- and youth-dedicated spaces*, which, in accordance with Schreiber (2018), are characterized by being "strictly regulated places" (310; own translation). Along with pedagogic principles and educational objectives, these spaces are designed and built under the premise of making "childhood [and youth] more productive" as well as exploiting "the potential of the next generation more effectively" (Schreiber 2018: 310–311; own translation).

Against this backdrop, the key argument we make in the following chapter is that a protruding characteristic of the refiguration of spaces (see Chapter 2) is that more and more spaces, and consequently also times, of childhood and youth are imbued with social control and spatial pedagogisation. In addition, more recent mechanisms of supervision have supplemented spatial pedagogization and social control. This, we argue, has manifold consequences on young people's *spatialities* and, by extension, spatial knowledge. With the aim of further elaborating this argument by grounding it on our findings, we have structured this chapter as follows: First, we discuss how adults' social control restricts young people's independent mobility and unsupervised play in public spaces. Subsequently, we broaden the scope and examine child- and youth-dedicated spaces whose underlying spatial pedagogization is particularly evident. All in all, our findings indicate that, though spatial pedagogization has a striking influence on activities performed in child- and youth-dedicated spaces, it does not predetermine the full range of young people's spatial practices. Afterward, we emphasize how parental guidelines and restrictions affect young people's spatial practices and, consequently, shape their everyday spatialities (see Chapter 4). Next, we discuss spaces of consumption as spatial arrangements that have prominently gained in importance among young people over the last 50 years (see Chapter 5) and, oddly enough, are subject to pervasive social

control. A core aspect within this section is young people's ambivalent attribution of significance to social control as enabling, on the one hand, and exclusive, on the other. We then describe young people's coping strategies: the spatial practices that make up the tactics used to counteract social control and spatial pedagogization. In so doing, we highlight how negotiations and conflicts over the uses of and access to spaces produce spatial knowledge that provides young people with an agency to shape their everyday spatialities. Finally, as in the previous empirical chapters, we close this chapter by discussing our findings in view of this book's overall topic: young people's evolving spatial knowledge and its refiguration.

Box 7.1: Social control and spatial pedagogization as key concepts created for the meta-interpretation of results

Social control: structures, processes, mechanisms, and actions for the deliberate control of individuals by a society with the ultimate aim of preventing and sanctioning behavior perceived as deviant.

Spatial pedagogization: inscription of intended and deterrence of unfitting uses and conducts in the design of spaces, which results in specific spatial forms of pedagogization.

Source: Own elaboration.

Keeping young people in public spaces on a tight leash: Restraining trivial behaviors and actions

Outdoor public spaces are important for and highly regarded by young people; there they can move around, play, or simply hang out. Despite various detailed assessments, our findings show that diverse public spaces have consistently been among young people's favorite spaces since the 1970s (see Chapter 5). In what follows, our discussion is centered around how young people's mere presence in public spaces and preferred spatial practices went from being frowned upon to overtly excluded and hampered. For our purposes, this includes all types of publicly accessible spaces that are relevant to young people, regardless of their ownership, be it public or private. For the sake of simplicity, we refer to these spaces in general as *public spaces*. One exception, however, is spaces explicitly conceived and built for young people, such as playgrounds, which we discuss in more detail later on in this chapter.

Although public spaces are usually thought to provide young people with flexibility and self-determination to perform their spatial practices at their ease, we argue that they are also infused by adults with supervision and social control. While this affects young people in general, as this age group is often stigmatized in many societies, our meta-analysis also shows that disadvantaged young people are influenced by it considerably. In addition, our findings indicate that the modes of social

control have become more variegated and intricate over the last 50 years, which has resulted in the emergence of child- and youth-dedicated spaces and young people's spatialities being increasingly susceptible to social control. Moreover, within our sample, we traced this phenomenon across different (sub)urban settings and geographic contexts in both the Global South (Swart-Kruger 2002; Arends and Hordijk 2016; Beazley 2016; Geertman et al. 2016; Agha et al. 2019) and Global North (Muchow and Muchow 2012 [1935]; Apel et al. 1985; Zeiher and Zeiher 1994; Hitzler 1995; Malone and Hasluck 2002; Seggern et al. 2009; Gräbel et al. 2015).

Tightening the leash: Adult-controlled access to and use of public spaces

Starting from the general observation that adults exert social control over young people in (and beyond) public spaces, we sustain that it is young people's access to and use of public spaces that are controlled. For example, children who grew up in two West Berlin neighborhoods during the early 1980s were repeatedly told by adults not to ride their bikes in public parks whenever they attempted to do so (Zeiher and Zeiher 1994). Similarly, and almost at the same time, their peers in the city of Herten, Germany, were reminded by signposts of undesirable behaviors (e.g., ball games prohibited) (Apel et al. 1985). Since these kinds of restrictions explicitly forbid specific spatial practices characteristic of young people, they can potentially drive them out of certain public spaces (Apel et al. 1985; Zeiher and Zeiher 1994; Agha et al. 2019). What is more, social control over public spaces can inhibit young people's presence directly (Apel et al. 1985; Zeiher and Zeiher 1994; Arends and Hordijk 2016; Agha et al. 2019). For example, disadvantaged Peruvian youths living in a peripheral barrio of Lima, which was characterized by the presence of youth gangs, were subject to exclusion whenever public spaces, such as those with green areas, were claimed by adults (Arends and Hordijk 2016). More specifically, clashes over their presence or particular uses were likely to arise:

> There are complaints from neighbors about young people causing trouble which gives these public spaces a dysfunctional reputation. Neighbors increasingly intervene and are trying to actively control access to the neighborhood's public spaces. Roberto (18) explains: "we pass time on the streets because the neighbors kick us out of the park. Because the friends with whom I hang out smoke marihuana, the people get bitter and throw us out."
>
> (Arends and Hordijk 2016: 236)

The main reasoning for restricting and even prohibiting young people's use of and access to public spaces, as shown in these meta-analyzed studies, is that their preferred spatial practices are considered deviant from an adult-defined norm (Apel et al. 1985; Zeiher and Zeiher 1994; Malone and Hasluck 2002; Swart-Kruger 2002; Arends and Hordijk 2016; Agha et al. 2019). For instance, the aforementioned study about young Peruvians in Lima illustrates how "using the public spaces for purposes other than those attributed to them by the neighbors" (Arends and Hordijk

2016: 235) is simply not viable and thus avoided. For their German counterparts in Herten, the situation was no different, for adults there put their need for quietness and order above children's needs. Thus, young people are very much expected to hang out solely in child- and youth-dedicated spaces like playgrounds—which we discuss in more detail later—since they are (allegedly) tailored to their needs and preferences (Apel et al. 1985; Zeiher and Zeiher 1994).

Consequently, young people face a dilemma about whether to behave and make their spatial practices comply with what is considered appropriate and acceptable or to retreat to less controlled spaces. Either way, we see how adults' social control largely shapes and determines young people's spatial practices and everyday spatialities—and as a result their *spatial cognizance* (see Chapter 6). Moreover, the struggle over the use of public spaces and tensions arising from differing understandings of acceptable spatial practices grow into intergenerational conflicts. In the case of the young people in Lima, for example, an "intergenerational conflict over access, appropriate use, and appropriate users" of spaces was recurrently observed (Arends and Hordijk 2016: 235). By the same token, the reality of Malaysian children living in a contemporary urban high-rise community in Bukit Cempaka during the late 2010s demonstrates more explicitly an imbalance of power given that their "access to spaces for play is dependent upon the intersection of time, space and age hierarchy" (Agha et al. 2019: 702).

Furthermore, young people's *spatial perception* is heavily impacted by adults' social control. Within our sample, this phenomenon dates back to the 1930s and is perceptible across various geographic contexts. In both the Global South—Indonesia (Beazley 2016), Malaysia (Agha et al. 2019), Peru (Arends and Hordijk 2016), and Vietnam (Geertman et al. 2016)—and the Global North—Australia (Malone and Hasluck 2002) and Germany (Muchow and Muchow 2012 [1935]; Hitzler 1995; Seggern et al. 2009; Gräbel et al. 2015)—the young people in our studies grew up well aware that their presence, autonomous mobility, and unsupervised spatial practices of play (see Chapter 6) were frowned upon at best and prohibited at worst. Young Australians in the suburban neighborhood of Braybrook in Melbourne, for instance, perceived public space as insecure (e.g., the presence of drunk people) and conflict ridden (e.g., with the police) (Malone and Hasluck 2002). The negativity with which the spatial perceptions of these young people were charged ended up pushing them out of public spaces and forced them to seek shelter elsewhere. Similar to their Australian peers, German teenagers in Hanover resorted to less socially controlled spaces (Seggern et al. 2009). According to one interviewee, who frequently hung out with their friends under a bridge at the city's edge, "[t]he remote location and specific features of the place offer the advantage of allowing us to stay away from adult control" (Seggern et al. 2009: 81; own translation). Specifically, the young German argued:

> It's just relatively big there. We don't disturb anyone, we can be as loud as we want, listen to music as loud as we want. […] Yes, we don't meet where it's central, where everyone passes by […]. If we had, let's say, to be quiet there or something, well, no one wants to do that. […].
>
> (Seggern et al. 2009: 81–82; own translation)

While these two cases give the impression that young people simply find another space where they feel at ease when being confronted by direct exclusion, negative perceptions of spaces that are subject to social control across different geographic contexts are in fact counteracted through a spectrum of—partly subversive, partly confrontational—spatial practices and strategies.

Moreover, our findings show how asymmetrical the spatial perception of young people and those of adults actually are with regard to the social control exerted over public spaces. From a parental standpoint, the presence of (other) adults and their social control over young people ensures their children's security when they roam the neighborhood on their own. For example, the parents of Australian children growing up in the small town of Dapto at the beginning of the 2010s "supported the role that neighbours had in supporting their children's safety when the majority stated that they believed that other adults in the community would care for their children when they were outside in the neighbourhood without an adult" (Malone 2013: 386). The claim that adults shared the responsibility of looking after unaccompanied young people can be seen in various geographic contexts, settings, and socioeconomic circumstances within our sample: from an urban neighborhood in late 1960s, early 1970s Taiwan (Schak 1972) and a self-built settlement in 1990s India (Bannerjee and Driskell 2002) to a refugee camp in 1990s Sudan and a settlement for returnees in early 2000s Ethiopia (Hammond 2003). Parents are almost the only advocates of the enabling character ascribed to social control: that is, entrusting all adults with young people's safety. An exception that proves this rule is the case of expatriate German teenagers living in gated communities in Shanghai at the end of the 2000s and the beginning of the 2010s (Sander 2016). Some of these teenagers tied a feeling of security to the (presence of) guards surveilling the compounds. Yet, they mostly perceived the widely adult-controlled ambience of the gated communities negatively. Thus, they preferred to meet and hang out with friends outside the limits of the gated communities.

Based on the meta-analyzed studies referred to thus far, we can state that young people and their characteristic practices and behaviors are considered disturbing and deviant by adults more often than not. As a consequence, public spaces seem to be broadly, though misleadingly, understood as adults' exclusive realm. Adults define the legitimate uses and users of public spaces and, accordingly, restrict young users, subtly at times and blatantly at others.

Some young people are kept on a tighter leash than others: Social control driven by stigmas and discrimination

In many societies, adults' social control is embedded in the general and continually reproduced stigmatization of young people. Moreover, this prevailing ageism is structurally anchored in and reinforced by media coverage, which amplifies the ways it intersects with discrimination along class, race, and gender lines. In other words, agism-based social control affects marginalized young people in particular. In this regard, our meta-analysis is indicative of how the exercise of social control over young people in public spaces does not rest solely on an unjust(ified), generic negative image, as previously mentioned. Rather, it targets, sometimes with acute

precision, distinctive age groups and their respective spatial practices in several geographic contexts within our sample: children in Herten, Germany (Apel et al. 1985), and Auckland, New Zealand (Carroll et al. 2015); adolescents in Barcelona, Spain (Ortiz et al. 2014), and Lima, Peru (Arends and Hordijk 2016); and young people in the East Midlands, Great Britain (Matthews et al. 2000), and Warsaw, Poland (Zylicz 2002). By and large, our findings show that the stigmatization of young people based on their negative image is recurrently based on the unfounded claim that their misbehavior needs to be corrected. Obviously, agism is a phenomenon that impacts young people's daily spatial practices and thus their spatial knowledge in many geographic contexts. For instance, the previously mentioned Malaysian children in Bukit Cempaka were stigmatized as "potential troublemakers" likely to destroy property (Agha et al. 2019: 700) when simply wandering around in public spaces. Similarly, boys—particularly African immigrants—in the suburban neighborhood of Braybrook, Australia, were seen by their neighbors as a "threat to public safety" (Malone and Hasluck 2002: 94). This assumption was actively and overtly echoed by the media, which placed the reality of these researched young Melbournites within the scope of Australian youth at large, who at the time were

> portrayed through media and police campaigns as deviant, barbaric and unclean — a threat to social order. The visibility of youth and their competing use of street space […] led to public demands for greater policing power to marginalise, exclude and remove young people from public view through the construction of imaginary boundaries.
>
> (Malone and Hasluck 2002: 87)

This phenomenon, we argue, frames the exclusion of young people from public spaces as a type of structural social marginalization, which in turn illustrates the power imbalance between different age groups in societies.

Furthermore, various meta-analyzed studies show that, in addition to age, adult prejudice toward young people intersects with class, race, and gender discrimination. As a result, certain groups of young people suffer more prominently from social control over access to and use of public space. Striking examples from our meta-analysis include young South Africans growing up in a squatter camp in late 1990s Johannesburg (Swart-Kruger 2002), young immigrant Africans in the suburban neighborhood of Braybrook in 1990s Melbourne (Malone and Hasluck 2002), young Peruvians living in the marginalized outskirts Lima in the first half of the 2010s (Arends and Hordijk 2016), and, in a rather extreme case, homeless Indonesian boys in 1990s Yogyakarta (Beazley 2016). Moreover, animosity toward some of these young people was exacerbated to the point of criminalization. Initially, young African immigrants turned to the streets of Braybrook due to the overcrowded living conditions in their homes seeking to produce their own spaces for socialization and identity building. Specifically, they "used the streets as their communal point and as a cultural and symbolic marker of masculine dialogue […] to talk about family issues, share experiences and build alliances" (Malone and

Hasluck 2002: 90). However, their attempts to claim "territorial ownership" over street space were met with strong resistance by neighbors and authorities alike, who then put them "constantly under the gaze of the community and policing agencies" (Malone and Hasluck 2002: 90/95). Eventually, their mere presence outside, by way of an unbalanced use of power exercised by adults, was gradually and effectively stigmatized. For instance, by falsely claiming that any one group of young people is de facto a gang, a growing sentiment of fear permeated the community:

> Consequently many of them experienced verbal abuse and harassment from police, as the following story written by a young African boy reveals: "Coming to Australia is not bad but there is still lots of discrimination against black people. Police often discriminate against us. Once we [a group of Somalian boys] were walking on the street and a police car stopped and asked me for my name and address for no reason. He said to me 'don't speak in bloody African language.' This made me feel really angry because he didn't respect my language or culture. He pushed my friend over when he came to help." (16 year old [sic] Somalian boy, personal newsletter entry, 1997).
>
> (Malone and Hasluck 2002: 90)

The struggle to create a space of their own in the streets, as this case makes apparent, is traversed by tensions related to age, race, and ethnicity.

Similar to these young Africans, but to a much more intense degree, gaining access to and being able to use certain public spaces for specific purposes was fundamental for homeless Indonesian boys in the city of Yogyakarta (Beazley 2016). Thus, a number of public spaces throughout the city composed the very base of their everyday life reproduction (see Chapter 4). Nevertheless, this lifestyle—which was not by choice—was (and very likely still is) regarded by society at large as a deviation from the desired norm. Accordingly, "[t]hrough a discourse of deviance, street boys were presented by the state and the media as a defilement of public space, an underclass which needed to be eradicated, and as 'criminal'" (Beazley 2016: 167). Subsequently, a series of surveilling, marginalizing, and oppressing tactics were initiated against homeless boys nationwide. As a result:

> [They] were frequently evicted from public places and faced the daily threat of violence and abuse by agencies of the state during national 'cleansing operations'. These operations were used as a means to "discipline and educate" street social life and to "eradicate street hooliganism and restore the public's sense of security" in major cities. […] "Cleansing" campaigns were often focused on bus terminals, train stations, shopping centers, and other public places commonly occupied by street boys, who were often caught in the "sweep" operations.
>
> (Beazley 2016: 167)

These two cases show that social control over young people's use of and access to public spaces is deeply entrenched in stigmatizing images and narratives of their

very presence (e.g., a group of young Africans on the street being portrayed as a gang) and spatial practices (from socializing to earning money to get by). Thus, age-based marginalization intersects with, and is exacerbated by, discrimination along class, race, and gender lines. At the same time, the social marginalization of groups of young people is aggravated by spatial marginalization. Furthermore, both young immigrant Africans in Melbourne and Indonesian street boys in Yogyakarta were well aware of their image and position that stigmatized them as aberrant vis-à-vis the other, supposedly normal, members of society. This stigmatization was enacted through media campaigns, official narratives, and even violent physical exclusion. While stigmatization and its ensuing exclusion are hard to fight and counteract, the young people from both of these two meta-analyzed studies and several others developed strategies to resist and deal with it (we examine them later on in more depth).

The leash has come a long way: Social control takes different, more elaborate shapes and forms

Our meta-analysis illustrates that the means by which social control is exerted over public spaces have become more diverse since (and even a few decades prior to) the 1970s. As a starting point, in the 1920s and 1930s in Hamburg, neighbors—especially stay-at-home mothers—exerted social control by merely being present in public spaces and addressing young people directly (Muchow and Muchow 2012 [1935]). In the same geographic context, but almost five decades later, children growing up in Herten (Apel et al. 1985) and West Berlin (Zeiher and Zeiher 1994) were subjected to social control in almost the same fashion as the children in Hamburg. This consistent mode of social control, in the particular case of the Berlin children, became known as "personal control" (Zeiher and Zeiher 1994: 24; own translation). In essence, personal social control refers to when mostly adults—be it neighbors or passers-by—approach young people directly and personally to introduce them to supposedly appropriate behavior in certain spaces and under specific circumstances and thus regulate or control their behavior. Interestingly, unlike young people in Hamburg, our findings show that children in both Herten and West Berlin were exposed to a more concealed kind of social control. Aside from the direct and personal address, these children were socially and rather impersonally controlled by way of signposts designating undesirable behavior (e.g., no cycling), technical systems that regulate behavior (e.g., traffic lights or camera surveillance systems), and the physical arrangement of public spaces (e.g., enclosures that prevent spaces from being occupied). This "structural control" (Zeiher and Zeiher 1994: 24; own translation) can be either explicit (as in the case of a signpost) or implicit (as in the case of material structures tacitly restricting certain practices).

Moreover, rather than *personal control* being replaced by *structural control,* as sustained by Zeiher and Zeiher (1994) in their study on Berlin children, our meta-analysis suggests that the two coexist. What is more, both modes seem to be inextricably linked with one another. A case in point in this regard is Peruvian youths growing up on the outskirts of Lima during the first half of the 2010s, where

members of youth gangs constantly clashed with neighbors over access to and use of public spaces in their neighborhood (Arends and Hordijk 2016). In order to claim public space as their territories, youth gang members resorted to not only threats but also actual assaults on people perceived as intruders. Specifically, "in the words of Roberto (18), a self-proclaimed pandillero, 'If we don't know you or you mess with us, we rob you. Nobody can enter who does not live here, if it is not your place'" (Arends and Hordijk 2016: 236). In the hope that such aggressive territorialization of public spaces could be counteracted and thus give way to "appropriate spaces" (Arends and Hordijk 2016: 236), neighbors performed their own means of spatial appropriation. For instance, by creating and fencing off little gardens, public spaces began to function "as more or less privately owned places" (Arends and Hordijk 2016: 236). While this tactic can arguably be deemed a mode of personal control given that it confronted and challenged gang members directly, the material modifications, which accommodated gardening as an alternative use of public space and hindered others, allude to structural control.

Similarly, the previously mentioned cases of young African immigrants in Melbourne (Malone and Hasluck 2002) and homeless Indonesian boys in Yogyakarta (Beazley 2016) demonstrate that personal control, far from losing significance, has been systematically anchored in the mechanisms of social control. In contrast to the young Peruvians in Lima, state authorities wielded social control instead of neighbors: the police over the young Africans in Melbourne and the army over the Indonesian street boys in Yogyakarta. These authorities targeted specific groups of young people and steadily pushed them out of public spaces. Oddly enough, this blatant form of personal control is not only tolerated but also actively championed by society—for example, neighbors informing the police about groups of young people gathered in the streets (Malone and Hasluck 2002). Thus, while personal control in 1980s Germany was mostly situation-specific and exerted on a case-by-case basis, these two instances show that the agency and logic of control have indeed become much more elaborate, at least in these two specific geographic contexts. Moreover, neither the German children in Herten and West Berlin nor the young Peruvians living on the outskirts of Lima experienced social control—be it personal or structural—as forcefully orchestrated and jarringly legitimized (due to its enactment by official state agents) as the young African immigrants in Melbourne and the Indonesian homeless boys in Yogyakarta.

In view of the diversification the modes of social control have undergone, due particularly to its systematic execution by state authorities and resulting legitimization, we contend that social control over young people's access to and use of public spaces has increased significantly during the past five decades. Likewise, with the advent of structural social control (from signposts and technical systems to purposefully (re)arranging the materiality of public spaces), we see social control spreading more rapidly and materializing more sophisticatedly. Sure enough, the evolution of young people's spatial knowledge has undoubtedly been shaped by the increasing irruption of the adult-driven social control in that their flexibility and autonomy to exercise their spatial practices have been pointedly and palpably reduced if not downright impaired. One prominent instance in which young

people's spatial knowledge is restricted is the spaces deliberately conceived and created for them: that is to say, child- and youth-dedicated spaces. Therefore, these will be considered in more detail in the following section.

Social control 2.0: Tailoring instead of restraining young people's access to and use of public spaces

As discussed in the previous section, young people have been increasingly pushed out of public spaces in recent decades. Public spaces have in many geographic contexts increasingly become spaces where young people are unwelcome, where they are subjected to social control, and where they are in strong competition with other users and uses. This section now focuses on an enhanced strategy that has been unfolding alongside this phenomenon: the increasing creation of child- and youth-dedicated spaces. These spaces serve as a middle point between designated territory and pedagogical dictate. The terms child-dedicated spaces and youth-dedicated spaces encompass the plurality of spaces that are envisioned and created, specifically and prescriptively, for children or youths. Other terms that are likely to be used in the literature include: child- and youth-rearing spaces, child- and youth-centered spaces, child- and youth-specific spaces, or simply spaces for children and youth. Recurrent examples within debates on both young people's geographies and child- and youth-friendly cities are playgrounds (for children) and skateparks (for youths). Yet, there is a wide range of spaces that may fall under this definition: outdoor public spaces (e.g., sport fields), commodified spaces (e.g., amusement or water parks), education and care institutions (e.g., day-care centers and schools), leisure institutions (e.g., youth clubs or scout homes), and a host of others. Though seemingly varied, these spaces all share an underlying societal consensus that they are development-conducive, be it cognitively, emotionally, physically, or otherwise.

We already touched upon child- and youth-dedicated spaces in preceding chapters—for instance, in terms of young people's spatial perception of schools and their premises (see Chapter 5) and adaptations of adult-tailored built environments (see Chapter 6). In this chapter, we take a closer look at them from the angle of social control and (spatial) pedagogization. For the most part, emphasis is placed on playgrounds as they constitute an omnipresent child- and youth-dedicated space within our sample. Child- and youth-dedicated spaces in general, and playgrounds in particular, appear in mostly urban settings of varying scales—from a small Australian town (Malone 2013) and a South African squatter camp (Swart-Kruger 2002) to megacities like Mexico City (Gülgönen and Corona 2015) and Dhaka (Ahmed and Sohail 2008). Furthermore, they are discussed across geographic contexts of the Global South (Schak 1972; Swart-Kruger 2002; Ahmed and Sohail 2008; Gülgönen and Corona 2015; Agha et al. 2019) and Global North (Hayward et al. 1974; Payne and Jones 1977; Apel et al. 1985; Zeiher and Zeiher 1994; Buss 1995; Hitzler 1995; Malone 2013).

Overall, our findings show that playgrounds subtly influence, and thus substantially shape, young people's spatial practices. As a result, their design ends up being instrumental—whereas certain uses and behaviors are intentionally suggested,

others are subtly discouraged. Moreover, since pedagogical considerations permeate the underlying design decisions, we draw on the notion of spatial pedagogization (see Box 7.1) to examine this phenomenon.

Pedagogically meaningful, safe, and partitioned: The underlying rationales of child- and youth-dedicated spaces

Our meta-analysis indicates the existence of several principles regarding the ultimate objectives pursued with the creation of child- and youth-dedicated spaces. Parents of middle-class and upwardly-mobile working-class families in late 1960s and early 1970s Taipei serve as a good example (Schak 1972). By stressing the importance of formal-institutional school education for their children's future, they created an almost exclusively home-based everyday spatiality for them (see Chapter 4). In fact, the school was the only place they were allowed to visit on their own. As a consequence, the researched children cherished this time and space within their fairly monotonous daily trajectories and used it to explore their (natural/built) surroundings at ease (see Chapter 6). The reasoning behind parents choosing to have their children's lives circumscribed by a few select spaces was driven as much by education as by socioeconomic status:

> The value placed on education by the [Taiwanese] […] cannot be overemphasized. It is valued not only for its own sake, it being a mark of distinction, but also because it is the only means for most people to gain or retain high status and high income.
>
> (Schak 1972: 201)

In contrast, US-American parents raising their children around the same time actively promoted outdoor activities, albeit in the specific settings designed and built for that purpose: playgrounds (Hayward et al. 1974). Their preference for these child- and youth-dedicated spaces can be attributed to the variety and, perhaps more specifically, to the suitability of the play opportunities. In this regard, the spectrum of play possibilities was largely determined by the physical arrangement of playgrounds, which, to realize their spatial pedagogization, combined play equipment with elements such as water and sand. In addition, playgrounds, as the ultimate child- and youth-dedicated space, were highly regarded by parents of these researched young US-Americans because of their adult-oriented facilities (e.g., benches, tables, and trees providing shade). Thus, whenever parents accompanied their children outside, they often—and fairly unsurprisingly—talked their children into going to playgrounds.

Both examples of child- and youth-dedicated spaces—the school and playground—can be traced back to their presumed innately positive characteristics: prominently, their significance for young people's development. Furthermore, the environmental-material *affordances* (see Chapter 5)—either the physical disposition of the school grounds or material configuration of playgrounds—that provide for such positive features allude to their not only implicit pedagogization

but also pedagogizing character. A distinction between one space and the other is the intermediating agency of adults. While in the case of school the pedagogizing character is accentuated through the implementation of curricula by teachers, parents on playgrounds would rather steer their children's behavior and practices (see Chapter 6 for a discussion of conventional playgrounds as arenas of non-formal learning). It is also noteworthy that the favorable perception of schools and playgrounds is chiefly shared by adults (i.e., parents), while young people's position and opinion are not considered relevant (see Chapter 5 for details on young people's somewhat ambivalent perception of the space of the school).

Other driving factors behind the creation and use of child- and youth-dedicated spaces relate to parents' criticism of the material and circumstantial conditions of public spaces at large. For instance, parents of children growing up in early 1980s West Berlin (Zeiher and Zeiher 1994) and in late 1960s and early 1970s Taipei (Schak 1972) considered it imperative to create child- and youth-dedicated spaces because of the increase in motorized traffic and the resulting threat this posed to their children due to the low degree of pedestrian-friendliness in their cities (see Chapter 5 for young people's negative perception of streetscapes; we look at parental attitudes toward traffic danger in more depth later on). Furthermore, the lack of maintenance, widespread litter, and inadequate safety in public spaces were issues that were sharply criticized by parents. Eventually, Taiwanese parents (Schak 1972) also justified restricting their children to the child- and youth-dedicated space of the school based on concerns about undesirable contacts and interactions their children could have elsewhere. All in all, we argue that these arguments come down to parents' attempts to protect their children. Thus, parents regard (public) spaces that are not designed specifically for children and/or youth as unsafe and unsuitable. A rather unintended consequence, as the case of German parents in the city of Herten during the early 1980s illustrates (Apel et al. 1985), is the misleading assumption that young people are not allowed to hang out in public spaces that are not dedicated to them. This in turn nurtures the belief that young people should stay where they supposedly belong due to their deviant behavior and practices. Societal discrimination against and stigmatization of young people in public spaces has been unrelenting as it traverses the temporal and geographic contexts of the sampled studies, as well as the classes and genders of the researched children and youths.

One last rationale we identified in favor of child- and youth-dedicated spaces is actually far more structural and overarching than adult and, in particular, parental critiques and prejudices. In the aforementioned study on children living in two West Berlin neighborhoods during the early 1980s (Zeiher and Zeiher 1994), the authors correlate the spread of child- and youth-dedicated spaces with the (then) prevailing modern planning principle of separation of functions. Back in the 1950s and 1960s, cities all over the world were significantly shaped by the *Functional City* concept. Laid out in the *Athens' Charter*, the Functional City conceptualizes the separation of four urban functions—living, working, recreation, and circulation—as the ultimate urban planning principle. Against this backdrop, the underlying logic of child- and youth-dedicated spaces seems to echo, downscale, and transform this

activity-based spatial division: schools (education), playgrounds (leisure), shopping centers (consumption-driven recreation), etc.

Although the underlying reasons for child- and youth-dedicated spaces (the fact that they are educationally significant, provide security, and are clearly demarcated) discussed so far seem quite diverse and thus unrelated at first glance, a closer look suggests otherwise. First and foremost, parents want spaces for their children that are visibly delineated and offer protection from perceived dangers on the one hand and afford and promote pedagogically meaningful activities on the other. As a result, the pervasive and hostile attitude in many societies toward (notably unsupervised) young people in public spaces is reinforced given the assumption that they must remain where they belong, namely, in the spaces explicitly dedicated to them. In this sense, both the desires of parents and the mindset of society at large are in line with the underlying planning principles of the Functional City, whose function-based zones and concomitant projects have been implemented by planning and design practitioners alike (urban and regional planners, urban and landscape designers, and architects) and have thus shaped cities in many countries from the 1950s onward.

Furthermore, these arguments are, to a greater or lesser extent, interwoven with the aspects of control addressed above. Adults' restrictions of young people's access to and use of public spaces were previously discussed as a specific form of social control. Parents want to have an overview of and, above all, influence on their children's spatial practices. In other words, they want to socially—and physically—control them. However, social control and parental control differ from one another in that the latter tends to have more far-reaching motives and sweeping effects. It is not about socially accepted behavior, but rather about pedagogically meaningful activities that further their children's development and, by extension, future opportunities. Therefore, instead of social control, it is pedagogization that is at play in the framework of child- and youth-dedicated spaces. Oddly enough, meeting the described desires for social control and pedagogization is, in one way or another, furthered by the strict and overt spatial separation of functions in modern cities.

In the next subsection, we follow up this examination of the interlinked rationales for the creation of child- and youth-dedicated spaces with a more in-depth discussion of their design aspects. To this end, we bring to the fore the specific spatial arrangements that underlie and rationalize the spatial pedagogization (and accompanying pedagogizing character) of child- and youth-dedicated spaces. Subsequently, we supplement the adult perspectives underscored in this subsection with young people's perceptions and uses of child- and youth-dedicated spaces.

A refined social control crystallizes: Pedagogizing the materiality of child- and youth-dedicated spaces

Child- and youth-dedicated spaces usually constitute highly specialized functional zones. They are specialized to the degree that they house specific functions (education, play, and recreation) and target particular age groups. By the same token,

child- and youth-dedicated spaces are specialized in that they predetermine young people's practices and thus leave little to no room for young people to make their own decisions, set priorities, etc., which impacts their spatial cognizance and *spatial performance* considerably (see Chapter 6). Both the specialization and ensuing arrangement of child- and youth-dedicated spaces primarily serve pedagogical considerations, whose materialization takes on diverse shapes and forms.

The extent to which child- and youth-dedicated spaces are pedagogized can be markedly institutionalized and, as such, quite overt. For example, schools and clubs have an official curriculum and a pedagogical program that determine the objectives and types of (learning) activities. Moreover, both school curricula and club programs are implemented by means of formal-institutional agency (see Chapter 6): that of teachers and club managers. Under these circumstances, stocks of spatial knowledge are almost entirely *mediated*, for they are imparted to young people. Consequently, the high and obvious level of (spatial) pedagogization that shapes schools and clubs enables adults to define rules of behavior and easily enforce supervision measures. As shown in the cases of children growing up in two West Berlin neighborhoods during the early 1980s (Zeiher and Zeiher 1994) and a small German town during the early 1990s (Hitzler 1995), there is almost no chance for young people to perform self-determined actions and creative uses of space.

While this form of pedagogization is quite explicit, in our meta-analysis we found another, more implicit one that also has direct bearings on how child- and youth-dedicated spaces are designed and constructed. As illustrated in the studies on Australian children in the 2010s small town of Dapto (Malone 2013), young US-Americans in 1970s urban neighborhoods (Hayward et al. 1974), German children in early 1980s West Berlin (Zeiher and Zeiher 1994), and an early 1990s small town in Germany (Hitzler 1995), a key characteristic of child- and youth-dedicated spaces is that their design (e.g., size, equipment, materiality, and arrangement) suggests certain intended uses and behaviors and discourages others. Conventional playgrounds serve as a striking and perfect example as their static play equipment—slides, swings, and monkey bars—and physical arrangement prescribe particular uses. Moreover, play equipment, and how its constitutive elements are positioned relative to one another, primarily determines simple modes of physical activity that revolve around the (distinctive pieces of) equipment and match intended (and certainly expected) uses. Thus, entire sequences of actions are predefined.

Consequently, young people's spatial practices on conventional playgrounds tend to be, for the most part, non-communicative and individual; it is as though playground equipment actually prevents young people from talking and interacting with each other. In this regard, design and planning practitioners play an instrumental role, for they inscribe with mathematical precision their intentions on playgrounds' materiality. As the authors of the study on early 1980s West Berlin children contend:

> Each piece of equipment is intended for very specific activities. It is specialized optimally for this purpose, with the more detailed forms for the intended course of action imprinted in its texture. In this way, children are encouraged

> to do what the planners and designers had in mind: to swing on the swing, to play ping pong on the ping pong table, to climb on the jungle gym.
>
> (Zeiher and Zeiher 1994: 25–26; own translation)

By making playgrounds' materiality prescriptive rather than responsive, design and planning practices predetermine and curb rather than encourage children's preferred, explorative, and unfettered uses. This is not in any way by chance; it is by design.

Hence, the spatial pedagogization of playgrounds in particular and child- and youth-dedicated spaces in general encourages only those spatial practices of young people that are considered meaningful and appropriate from an adult-centered point of view. While spatial pedagogization seems to bespeak social control, as we have previously described, it differs in that it does not seek to prohibit young people's presence in and use of (public) space, but rather to restrict them. To this end, spatial pedagogization creates the illusion that young people, while being in child- and youth-dedicated spaces, are not denied or forbidden anything. On the contrary, by means of a wide array of attractive options, young people are made to believe that child- and youth-dedicated spaces are actually their own territories. However, rather than territorialization, it is an adult-controlled and subreptitious set of pedagogical principles that is at play. To return to the case of conventional playgrounds, the study on children from early 1980s West Berlin assessed their spatial pedagogization critically as

> an object-bound form of societal domination over children. In playground equipment […], domination does not initially work through coercion, but through enticement, because the use is left up to each child. However, once a child has decided to get involved, the spatial-material nature of the playground directs the course of events.
>
> (Zeiher and Zeiher 1994: 26; own translation)

Oddly enough, parental assessments often contrast starkly with this critical assessment. As pointed out in the previous subsection, the spatial pedagogization of child- and youth-dedicated spaces is precisely what magnetizes parents. They appreciate the uses inscribed in the materiality of playgrounds as they believe them to be pedagogically meaningful for their children. This positive assessment of parents regarding the intended affordances of child- and youth-dedicated spaces, which is articulated through their spatial pedagogization, raises the question of how young people actually perceive (and thus use) the spaces tailored specifically for them. As illustrated in Chapter 5, young people's assessment of both playgrounds and schools (including the premises) is somewhat ambivalent. While some young people perceive playgrounds as limiting, others see them as enabling. Similarly, playground equipment is regarded as being both boring and unchallenging as well as enjoyable to play with (see Chapter 5 and, for non-formal learning implications in playgrounds, Chapter 6). As to schools, the picture is no different. Whereas some young people clearly recognize, and thus stress, the importance of school as

a setting for socialization, others report that they have experienced social tensions there. Furthermore, some young people oppose school directly as the spatial setting of their formal-institutional learning (see Chapters 5 and 6).

This ambiguity is also perceptible in the spatial practices performed by young people in child- and youth-dedicated spaces. Our findings show that there are two general tendencies. On the one hand, some of the young people's spatial practices are mostly in line with the uses intended by the designers and planners, as well as with parental expectations. On the other hand, some young people perform spatial practices that appear deviant compared to those envisioned by the designers and planners and expected by parents. We found evidence for the second tendency within our sample across different temporal and geographic contexts. For example, conventional playgrounds spoke to young Bengalis growing up in 2010s Dhaka (Ahmed and Sohail 2008), young Canadians in 1970s suburban Calgary (Payne and Jones 1977), German children in 1980s West Berlin (Zeiher and Zeiher 1994), children in a 1990s small town in Germany (Hitzler 1995), Malaysian children in 2010s Bukit Cempaka (Agha et al. 2019), Mexican children in 2010s Mexico City (Gülgönen and Corona 2015), young South Africans in 1990s Johannesburg (Swart-Kruger 2002), and US-Americans in 1970s urban neighborhoods (Hayward et al. 1974) and 1990s Los Angeles (Buss 1995). All these young people valued and enjoyed playing with playground equipment. Furthermore, their spatial practices corresponded to a large extent to the intended uses inscribed in the materiality of the playground of their choice. In other words, they swung on the swings, slid down the slides, and seesawed on the seesaws. Interestingly, in the particular case of the young US-Americans living in urban neighborhoods during the 1970s (Hayward et al. 1974), some of the study participants seem to have internalized and thus reproduced the playground's spatial pedagogization. They were observed asking peers to behave and encouraging each other to use the play equipment properly, so to speak. All in all, this case illustrates that the interplay between the physical arrangement and young people's spatial practices can be considered unilateral given that "[t]he opportunities and constraints of the physical environment may be seen to predict the majority of predominant activities" (Hayward et al. 1974: 154).

In contrast, the cases of young Argentinians living in a disadvantaged barrio on the outskirts of the city of Neuquén (Jaramillo 2011) during the late 2000s and early 2010s, German children growing up in the city of Herten during the early 1980s (Apel et al. 1985), and some of the Malaysian children (Agha et al. 2019) illustrate that young people may read and interpret the spatial pedagogization of child- and youth-dedicated spaces differently than intended by the designers and planners. For example, the German children (Apel et al. 1985) did not restrict their spatial practices of play—which we deem a form of *non-formal learning* in and of themselves (see Chapter 6)—to the physical boundaries of the playground. Eventually, their play spilled over into adjacent areas such as streets, green areas, and backyards. It is worth noting that, by going and playing beyond the playground, these children were not necessarily resisting its implicit limitations (i.e., swinging on the swings). Rather, this behavior seems to have come from the innate desire to examine their (natural/built) surroundings physically and with their senses—which, in

turn, initiates the production of *embodied-experienced* stocks of spatial knowledge (see Chapter 6). Similarly, the Malaysian children's play did not solely include common activities based on the options offered by the playground equipment to which they had access (e.g., sliding and climbing). They also pursued imaginative games in which they reinterpreted the playground's materiality and its arrangement. For instance, they turned the playground into a "'ghost house'" by "knocking the sides of the slide, making eerie noises, screaming into the slide to make booming voices and in sudden moves, pulling the 'victim's' hand or legs down the slide" (Agha et al. 2019: 697). Moreover, the material qualities of the playground equipment were essential for the game: the "covered slide is particularly crucial for the play of 'ghost house' as its circular shape creates a tunnel-like atmosphere that provides an echo effect to the voices of the 'scary ghosts'" (ibid.). This creative symbolization and appropriation of a playground stress young people's ability to find hidden affordances embedded unintentionally in child- and youth-dedicated spaces, which differ from those intentionally inscribed by the design and planning professionals. In other words, where adults saw, and thus expected children to see, a slide to be used for sliding, children saw something quite different. The imaginative potential of these Malaysian children went even further. Specifically, the children managed to overcome the unsuitability of some of the playground equipment and, by attempting to wind and unwind a broken swing from the horizontal pole holding it, new playful behaviors emerged. Overall, these children's "practices of reimagining, inventing and reconstructing a space in multiple ways" reflects "their agency in shaping their own play experiences" (Agha et al. 2019: 698).

Similar to the Malaysian children, the spatial practices of young Argentinians in Neuquén show how a space with an explicit intended use could be used in several alternative ways (Jaramillo 2011). By using their barrio's soccer field to play other sports or even as a dance floor, the alternative spatial practices of play performed by these young people illustrate their understanding that previously established uses are not set in stone. What is more, their chosen activities paved the way for a sense of appropriation, which was reflected in the intensity with which the interviewees would talk about certain spaces, even to the point of regarding them as their own. Hence, these young people's singular and collective spatial practices of play are indicative of how they learned to adapt child- and youth-dedicated spaces to their needs and preferences. In addition, this shows how "space is, above all, lived and represented and not just geometric, homogenous, and abstract" (Jaramillo 2011: 205; own translation).

As a whole, our meta-analysis suggests a twofold conclusion. First, it is evident how the spatial pedagogization of child- and youth-dedicated spaces—especially playgrounds, the focus of this subsection—has a strong impact on young people's spatial practices of play and thus significantly shapes their spatial knowledge. Second, the three previously reviewed meta-analyzed studies demonstrate that spatial pedagogization does not predetermine all of young people's spatial practices of play. Young people follow their intuitions and use spaces according to their own interpretations and preferences. They manage to identify and exploit affordances

lying dormant in the materiality of child- and youth-dedicated spaces, which correspond neither to those envisioned by the designers and planners nor to parental expectations. In that sense, young people are able to unleash their creative and imaginative potential to take over the spaces dedicated explicitly to them. In so doing, they somewhat unknowingly and inadvertently disregard the spatial pedagogization of those spaces. Yet, spatial pedagogization is not the sole factor that can considerably limit young people's spatial practices and that they are forced to circumvent in turn. Amid various other factors, parents play a key (and even defining) role in young people's production and acquisition of spatial knowledge (see Chapter 6). We elaborate on this topic in the following section.

The hand that rocks the cradle: Parental influence on young people's spatial knowledge

While the effect of parental decisions was discussed in the previous section, we now focus on their influence with regard to young people's whereabouts, as well as their independent and supervised play and mobility. Overall, our findings suggest that parents' influence on their children's spatial knowledge is enormous. In this section, we argue that parental guidelines and restrictions regarding three closely intertwined topics are most influential. First, by and large, many parents prefer that their children stay at home. Second, many parents keep their children's autonomous outdoor play and independent mobility to a minimum. Third, many parents allow their children to leave home only under supervision. While the reasons for this are mostly related to safety issues, our meta-analysis reveals that age and, prominently, gender are decisive factors, too. Furthermore, we found evidence of this throughout our sampled studies in diverse geographic contexts and at different points in time: 1950s Germany (Pfeil 1965); late 1960s and early 1970s Taiwan (Schak 1972); 1970s USA (Hayward et al. 1974), Argentina, Mexico, Australia, Poland (Lynch 1977), and Canada (Payne and Jones 1977); 1980s Germany (Zeiher and Zeiher 1994); 1990s USA (Buss 1995; Salvadori 2002), Germany (Hitzler 1995), South Africa (Swart-Kruger 2002), Australia (Malone and Hasluck 2002), and India (Bannerjee and Driskell 2002); early 1990s and early 2000s Sudan and Ethiopia (Hammond 2003); 2000s Zambia (Gough 2008) and Bangladesh (Ahmed and Sohail 2008); 2010s Bolivia (Serrano 2015), New Zealand (Carroll et al. 2015), Mexico (Gülgönen and Corona 2015), USA (Burke et al. 2016), Peru (Arends and Hordijk 2016), and Malaysia (Agha et al. 2019).

Ubiquitous rules: Keeping a constant eye on young people

To a large extent, though not exclusively, young people's everyday lives in our meta-analyzed studies have been characterized by home-based activities ever since the 1970s (see also Chapter 4 to see how their spatialities have evolved). Young people's independent mobility and unsupervised outdoor play are kept within strict limits via acts of authorization and prohibition. Parents give their children clear guidelines on which places they are allowed to visit and which not and how far they

are allowed to go from home (Pfeil 1965; Schak 1972; Zeiher and Zeiher 1994; Buss 1995; Hitzler 1995; Bannerjee and Driskell 2002; Salvadori 2002; Malone 2013; Carroll et al. 2015; Gülgönen and Corona 2015; Serrano 2015; Burke et al. 2016). What is more, we found somewhat extreme cases in which the children and youths almost never left their homes or immediate vicinities unless it was to attend school. For example, young Mexican and Cambodian immigrants living in the Oak Park housing complex in the neighborhood of Fruitvale Oakland, California, were "forbidden to go almost anywhere around the neighbourhood, the[y] [thus] […] spend all day inside the perimeter of the housing complex" (Salvadori 2002: 193). Although young people tend to be bold enough to challenge parental mandates, these youths did not dare disobey their parents and venture outside since they were, to a certain degree, aware of their socio-spatial exclusion. Similarly, Australian children growing up in Auckland's urban and suburban neighborhoods (Carroll et al. 2015) were allowed to play outside only as long as the spaces where they chose to do so met parental safety standards—especially where parents could keep an eye on them.

Moreover, mobility is not necessarily reduced and independent mobility and play are not necessarily regulated using conventional rules. By limiting their children's free time, parents indirectly and more subtly manage to keep them close by and visible. In several meta-analyzed studies, it is noteworthy that parental control over young people's play (or other types of activities) seeks to balance the daily rhythms of the family as a whole, while ensuring that enough time is spent on homework, studying, domestic chores, errands, and care responsibilities: for example, looking after younger siblings or older relatives (Schak 1972; Bannerjee and Driskell 2002; Malone and Hasluck 2002; Swart-Kruger 2002; Hammond 2003; Ahmed and Sohail 2008). In addition, parents resort to temporal constraints to make their children avoid certain practices and spaces at specific times of day. For instance, for young Zambians growing up in Lusaka during the first half of the 2000s, leaving their compound in the evening was strictly prohibited because it was considered too dangerous (Gough 2008).

With regard to supervision and mobility, in a number of sampled studies, an adult or older sibling would always accompany children when spending time outdoors. Likewise, parents, irrespective of how far away, would more often than not drive their children to school, a friend's house, a club, etc. (Pfeil 1965; Schak 1972; Hayward et al. 1974; Salvadori 2002; Carroll et al. 2015; Gülgönen and Corona 2015). Parental supervision and control can become so omnipresent, as illustrated in the case of middle-class children in late 1960s and early 1970s Taipei (Schak 1972), that the only space where young people are not supervised is at school—where parents count on teachers to fill in for them. Similar to these Taiwanese children, in various urban settings throughout Germany during the mid-1950s, it was common to "find the fearfully sheltered child who is kept back in the flat and only goes out on the street and visits the park under the supervision of their mother" (Pfeil 1965: 48; own translation). Since this was prior to the 1970s, the turning point from which we analyzed the evolution of young people's spatial knowledge, we might conclude little to no change regarding omnipresent parental

rules and tactics to keep children close at hand throughout the last 50 years. However, the studies on children growing up in early 1980s West Berlin (Zeiher and Zeiher 1994) and early 2010s Auckland (Carroll et al. 2015) indicate a growing trend of home-based activities. This, in turn, has led to what is commonly referred to as the *domestication of childhood and adolescence*. Similarly, from children living in 1990s Los Angeles (Buss 1995) to children in early 2010s Auckland, our meta-analysis suggests that both autonomous mobility and unsupervised outdoor play have become progressively restricted, even to the point that play has turned into "an increasingly adult-dependent activity" (Carroll et al. 2015: 16).

Interestingly enough, our findings suggest a striking correlation between the geographic context (namely, the Global North) and type of settings (mostly urban) and the increasing domestication of childhood and adolescence. This correlation surfaces when the aforementioned studies are contrasted with the case of young Bolivians growing up in the rural village of Churquiales (Punch 2000). These young people "were not constrained by parental fears for their physical safety and they were free to roam the mountainsides and explore the surrounding countryside" (Punch 2000: 53). Specifically, in "Churquiales, a child's daily movement to the square for school, to the hillsides with animals and to the river to fetch water, was usually undertaken alone, without seeking prior permission from parents" (Punch 2000: 54). While this allowed these young Bolivians to gain self-determination and circumvent adults' control and limitations, they still struggled with and had to negotiate their times and spaces for playing. Despite the sharp contrast of this case, we consider it to be nothing more than a counterpoint. The Global South-Global North division in particular remains difficult to substantiate all the same given that parents' omnipresent rules seem to have spread (and will likely continue to extend) across diverse geographic contexts. At the same time, the very nature of a qualitative meta-analysis makes it unsuitable for extrapolation (see Chapter 3). By contrast, class, as a typical analytical variable of the sampled studies, indicates that the socioeconomic condition of families significantly determines the extent to which parents are likely to exert control over young people's independent mobility and outdoor play. For example, Taiwanese working-class children in Taipei (Schak 1972), young Zambians in Lusaka (Gough 2008), and young African immigrants in Melbourne (Malone and Hasluck 2002) turned to their neighborhood streets to meet, play, or simply wander around with friends due to overcrowded living conditions at home. Although we were not able to derive further, and more concrete, reasons from the meta-analyzed studies as to why these young people were not subjected to more control and restrictions, we did identify the reasons for which parents keep their children at home.

The ultimate parental aspiration of keeping young people in check: Safety, safety, and more safety

A variety of reasons have driven parents to either accompany (or have someone else escort) their children almost everywhere they go or monitor them when they play outside. However, our meta-analysis shows that safety is by far the most

predominant determinant. A prominent example of this is the young people in Melbourne growing up during the 1990s in the suburban neighborhood of Braybrook, for whom "'[h]anging out' or even just 'going out' was determined not to be a safe option" (Malone and Hasluck 2002: 101). Likewise, Malaysian children in a contemporary urban high-rise community in Bukit Cempaka were "constructed as vulnerable beings needing protection" (Agha et al. 2019: 700). While danger and insecurity are perceived in these two particular cases rather vaguely, in other sampled studies we identified specific causes of parental concerns about their children's safety. For instance, traffic-related concerns have steadily led to an (almost permanent) sense of insecurity in different geographic contexts included in our sample: late 1960s and early 1970s Taipei (Schak 1972); early 1980s West Berlin (Zeiher and Zeiher 1994); 1990s Melbourne (Malone and Hasluck 2002), Los Angeles (Buss 1995), and a small German town (Hitzler 1995); 2010s Dapto (Malone 2013), La Paz (Serrano 2015), Mexico City (Gülgönen and Corona 2015), Auckland (Carroll et al. 2015), and Bukit Cempaka (Agha et al. 2019). A common denominator across these studies is how parental fears were closely connected to fast cars, reckless drivers, increasing truck traffic, and a lack of pedestrian-friendliness (see Chapter 5 for young people's perspective).

Another prominent safety-related concern among parents is criminality. In particular, studies on children (Malone 2013) and young people (Malone and Hasluck 2002) in Australia, children in New Zealand (Carroll et al. 2015), and young people in the United States (Salvadori 2002; Burke et al. 2016) suggest that parental concerns have revolved notably around the presence of strangers in public spaces ever since the turn of the 21st century. As a consequence, besides traffic, the so-called *stranger danger* phenomenon seems to have been pervading parents' decisions to restrict their children's independent mobility and outdoor play. In addition, there is apprehension among parents about the sort of contacts their children could have in public spaces when not supervised and the potential consequences of such contact. Incidentally, this is closely linked to the bad image and stigma assigned to the presence of young people in public spaces, which we outlined earlier in this chapter. In this regard, parents from a peripheral settlement in Lima, for example, kept "their children out of public spaces as a way of 'good parenting'. The reason being that hanging out in the streets is associated with the bad habits of loitering youth" (Arends and Hordijk 2016: 237). Similarly, parents of middle-class children in Taipei (Schak 1972) and Dapto (Malone 2013), as well as parents of young people in Melbourne (Malone and Hasluck 2002) and Bangalore (Bannerjee and Driskell 2002), made sure their children were home most of the time. However, unlike their Peruvian counterparts, these parents wanted to prevent their children from being involved in criminal activities, exposed to rough-mannered peers, bullied by other young people, or, as in the case of middle-class Taiwanese children, distracted from their homework and studies.

Overall, our meta-analysis illustrates that parents' guidelines and restrictions are primarily based on a negative perception of spaces without (some form of) parental supervision: that is to say, where their children disappear from the radar. Accordingly, the ultimate logic and justification for keeping children under supervision

is founded on the issue of safety—and the different instances into which we have broken it down. Moreover, these have become more heterogenous over the past decades: While traffic-bound danger has been discussed since the 1970s and, quite notably, throughout the 1990s, fear of criminality and stranger danger have gained traction among researchers since the 2000s. Moreover, although our findings suggest that parents across all geographic contexts of the sampled studies share similar if not the same concerns and apprehensions, we have identified important distinctions along gender lines, which are the subject of the next subsection.

Gender-biased rules: Unbalanced distribution and impact of parental restrictions

As several meta-analyzed studies demonstrate consistently throughout the timeframe covered by our sample, parental requirements and expectations are distinctively different for girls than they are for boys. As a rule, girls are greatly disadvantaged in terms of their spatial practices and, as a consequence, spatialities (see Chapter 4). Regardless of both geographic and socioeconomic contexts, our findings indicate that parents set stricter rules for their daughters than for their sons. For instance, young Argentinian, Mexican, Polish (Lynch 1977), and Canadian (Payne and Jones 1977) girls during the 1970s were subjected to more control by their parents. Throughout the 1980s, 1990s, and early 2000s, we found evidence of this gender bias in neighborhoods of Manhattan and Brooklyn (Van Staden 1984), a small German town (Hitzler 1995), a self-built settlement on the outskirts of Bangalore (Bannerjee and Driskell 2002), a housing complex in Oakland (Salvadori 2002), a suburban neighborhood in Melbourne (Malone and Hasluck 2002), a squatter camp in Johannesburg (Swart-Kruger 2002), a refugee camp in Sudan, and a returnee camp in Ethiopia (Hammond 2003). During the 2000s, Bangladeshi girls in Dhaka (Ahmed and Sohail 2008) and Zambian girls in Lusaka (Gough 2008) prove that the tendency to favor boys over girls endured well into the 2010s, which is also reflected by young girls from the small Australian town of Dapto (Malone 2013).

As a result of gender-biased parental restrictions, girls have—or at least are expected—to spend more time at home and help around the house. Thus, they are granted fewer opportunities for unsupervised play. In addition, the number of spaces not suited for girls, in their parents' opinion, is far greater than for boys, which translates into practically no autonomous mobility (Lynch 1977; Payne and Jones 1977; Van Staden 1984; Hitzler 1995; Bannerjee and Driskell 2002; Malone and Hasluck 2002; Salvadori 2002; Swart-Kruger 2002; Hammond 2003; Ahmed and Sohail 2008; Gough 2008; Malone 2013). Hence, girls' *activity spaces*—understood as the sum of all the spaces relevant to a person's everyday life[1]—are smaller and less diverse than those of boys.

As the cases of girls living in suburban Melbourne (Malone and Hasluck 2002) and urban Dhaka (Ahmed and Sohail 2008) indicate, such spatial constraints may become so extreme that girls or even groups of girls (e.g., of a certain ethnicity) virtually disappear from public spaces and therefore from society. Moreover, Asian girls in Melbourne were not allowed to stay home alone either, so they were sent to their relatives, for instance, after school until their parents returned home (Malone

Figure 7.1 Diversification of modes of social control and its gender-biased distribution. Graphic: Grit Koalick, visuranto.de, based on own elaboration.

and Hasluck 2002). Similarly, though under quite different circumstances, displaced Ethiopian girls growing up in the 1990s in a refugee camp in Sudan underwent a gender bias that grew worse over time—even after their coming of age (Hammond 2003). While boys' activity spaces expanded progressively, girls' activity spaces remained small and circumscribed by the camp's physical boundaries. Oddly enough, the already limited range of these girls was strained to the limit as they grew older and married since they "became more tied to the home" as a result of their domestic duties (Hammond 2003: 86). While this case illustrates that girls are subject to a blatant gender bias (and its intensifications) throughout time, the reality of the children from the Australian town of Dapto (Malone 2013) also reveals how deep-seated and structural the nature of this bias actually is. In the early stages of these children's independent mobility, a partiality for boys was evident in that they "on the whole receive much more freedom than their female counterparts" (Malone 2013: 385). Furthermore, our meta-analysis also shows a different, though rather exceptional, perspective. Within our sample, only two studies—the cases of young people in Santa Cruz de Tenerife (Díaz-Rodríguez et al. 2015) and children in Mexico City (Gülgönen and Corona 2015)—indicate no major divergencies along gender lines pertaining to both spatial practices and activity spaces.

Be that as it may, our findings show that girls' spatial practices are highly influenced by, and are an expression of, gender-specific expectations and attributions (Payne and Jones 1977; Malone and Hasluck 2002; Salvadori 2002; Ahmed and Sohail 2008; Cummins 2009). Moreover, parental restrictions can be markedly influenced and even deepened by cultural and religious expectations. For example, in the abovementioned case of Asian girls in Melbourne, while Anglo-Saxon girls were allowed to join the boys on the streets on occasion, their non-Anglo-Saxon counterparts—including African girls—remained practically concealed and secluded in the private space of their houses for cultural and religious reasons (Malone and Hasluck 2002). In addition to religion and culture, parents draw on various other motives to restrict their daughters' spatial practices and activity spaces. In different geographic contexts, parental guidelines and restrictions have a broad basis: from fears related to safety, reputation, virginity, and pregnancy to the threat of assault and (physical) violence (Bannerjee and Driskell 2002; Swart-Kruger 2002; Ahmed and Sohail 2008; Gough 2008).

We have also identified how gender bias plays out in conjunction with duties assigned by parents. Many of the young people within our sample had various obligations: doing household chores, running errands, assisting their parents in their work, and even (sometimes precarious) remunerated jobs (see Chapter 6 for a discussion on how spatial practices of duty shape young people's (in)formal learning and spatial knowledge). Depending on the geographic context and the family's economic situation, the specific tasks included, for example, cleaning, cooking, laundry, caring for younger siblings or older relatives, shopping, fetching water, and shepherding (Payne and Jones 1977; Punch 2000; Bannerjee and Driskell 2002; Malone and Hasluck 2002; Salvadori 2002; Swart-Kruger 2002; Hammond 2003; Ahmed and Sohail 2008). In some specific instances, young people even had temporary remunerated employment to help support their family (Bannerjee and Driskell 2002). Although it might seem as though class primarily defines the

allocation and number of duties at first glance, a closer look reveals that gender plays a prominent role, too. For the most part, the girls in our sample helped around the house and looked after siblings or older relatives. While running errands would have been one of the very few opportunities for these girls to roam freely and dare to venture beyond the immediate vicinity of their homes and neighborhoods, they were rarely, if ever, asked to do so. Reasons for parents to have their sons, rather than daughters, perform tasks such as running errands, fetching water, and shepherding were related to safety and the need for young girls to become acquainted with their future roles and tasks, which are chiefly home based.

All in all, young girls are faced with stricter parental guidelines and restrictions, which in turn reduce their independent mobility and unsupervised play (see Figure 7.1). This unbalanced distribution and the impact of parental restrictions even predetermine these young girls' futures. The fact that the omnipresent rules for children are gender biased also has bearings on how young people produce and acquire spatial knowledge. As our findings suggest, whereas boys enjoy more freedom to wander around and thus develop a wider spectrum of spatial knowledge as they grow older (see Chapter 6), girls are restricted by parental rules that mostly keep them at home. Moreover, it is noteworthy how constant and pervasive this partiality for boys is. Indeed, it traverses the geographic contexts, settings (urban, suburban, and rural), classes, and periods of time in which the sampled studies were conducted. Hence, we see young people's spatial knowledge steadily shaped by a marked gender-based inequality, which can be attributed to both social and cultural particularities. On the one hand, parents more often than not uphold stricter rules for young girls by resorting to patriarchal arguments such as reputation and chastity. On the other hand, parents' reasoning for restricting their children—boys and girls alike—revolves almost exclusively around safety concerns. In essence, the reasons for which girls are subjected to stricter rules can be traced back to gender-specific societal and cultural factors.

Effects of panoptic control: Restricted environmental proficiency and limited embodied-experienced spatial knowledge

Parental guidelines and restrictions regarding young people's whereabouts, independent mobility, and unsupervised outdoor play have manifold effects. Their variety notwithstanding, they can be grouped according to where they unfold: indoors (the home, where young people spend a great deal of their daily lives) and outdoors (where young people's activities have been increasingly subjected to control). Either way, our findings suggest that young people's production of embodied-experienced stocks of spatial knowledge (see Chapter 6) has been domesticated. For one thing, having to stay at home limits young people's activity spaces, the lack of space all too often prevents active games, and parents expect their children to behave well. Accordingly, domestication tends to reduce the spectrum of young people's practices (Schak 1972; Zeiher and Zeiher 1994). As a result, young people generally engage in sedentary activities such as playing board games, drawing, and coloring. In addition, our meta-analysis indicates a growing trend of indoor activities based on media consumption: watching television and playing either on

the computer or with game consoles. Furthermore, media consumption, especially computer-based amusement and communication, is so enticing to young people that even when presented with the choice to go outside, they would rather stay at home (Malone and Hasluck 2002; Carroll et al. 2015; Díaz-Rodríguez et al. 2015; Serrano 2015). The case of children growing up in urban and suburban neighborhoods in 2010s Auckland (Carroll et al. 2015) illustrates how profound the impact of spending substantial amounts of time consuming media at home can be as some children relate adventure not to outdoor experiences anymore but to a new computer game (Carroll et al. 2015). So, while parents are instrumental in restricting their children's embodied-experienced spatial knowledge, young people t hemselves—with the advent of widespread access to media—have played a role in this as well (see Chapter 4). However, as media consumption has become less and less home dependent thanks to the flexibility of mobile devices, it will be interesting to research newer trends as certain games and apps, like the augmented reality mobile game *Pokémon Go*, require participants to step outside and walk around.

Together with sedentary activities and media consumption, the everyday routines of the aforementioned young Aucklanders demonstrate that the type of housing can also shape young people's spatial practices of play (and thus their spatial knowledge):

> For most children, home and adjacent third-place thresholds (backyards, courtyards, driveways and apartment foyers, corridors and communal leisure facilities) were their favourite places in which to play, whether they lived in a standalone house with a garden in the suburbs or in an inner-city townhouse or apartment. The home-based activities of most inner-city children were sedentary. […] Indoor play was also common for suburban children, but they also talked of being physically active outside in backyards, playing with friends and siblings. Some had extensive backyards, while driveways provided smooth surfaces for bike-riding and skateboards.
>
> (Carroll et al. 2015: 11)

This passage shows that class is a factor that determines how sedentary or active young people's play actually is when they are at home or close by (which constitutes *the circumambient spaces around the home*, the nucleus of their everyday spatialities, see Chapter 4). Because not only the housing type (size, facilities, etc.) but also the neighborhood typology (an inner-city apartment complex or a suburb with single-family houses) demarcates specific playing circumstances (e.g., backyards for romping around or driveways for skating and riding a bicycle), the production of embodied-experienced spatial knowledge varies accordingly.

Our meta-analysis indicates that parents primarily predetermine outdoor activities—that is to say, those that enable young people to examine the (natural/built) environment physically and with their senses (see Chapter 6). Since young people have come to depend on their parents to move around (in particular, those settled in car-oriented settings), where and what they do while being outside has become increasingly less attuned to their preferences and needs. One prominent

example is young US-Americans growing up during the 1970s in urban neighborhoods, where adults (either parents or caretakers) represented

> a strong influence — perhaps the strongest influence. They usually create or enforce some set of rules about acceptable and desirable behaviour, and children often look to adults for advice on how to do something, for suggestions of what to do, and for approval of their actions.
>
> (Hayward et al. 1974: 146)

Similarly, but in a more explicitly imposing way, the everyday lives of German children living in two early 1980s West Berlin neighborhoods (Zeiher and Zeiher 1994) and middle-class Taiwanese children in late 1960s and early 1970s Taipei (Schak 1972) were virtually governed by their parents.

These three studies, as well as others from our sample (Pfeil 1965; Buss 1995; Bannerjee and Driskell 2002; Salvadori 2002; Gülgönen and Corona 2015; Serrano 2015), indicate how parents have constrained and controlled young people's environmental experiences. Accordingly, as activity spaces are shrinking and becoming less diverse, young people's production and acquisition of embodied-experienced spatial knowledge become restrained. For example, children in urban neighborhoods of mid-2010s Mexico City developed a fragmented perception and image of their living environment because they were driven almost everywhere by their parents (Gülgönen and Corona 2015). Similarly, young immigrant Mexicans and Cambodians living in a housing complex in Oakland had very limited and "scarce knowledge of the outside" (Salvadori 2002: 193) since they hardly ever ventured beyond the perimeter of their housing complex. Likewise, though with a pronounced gender bias, young Bangalorean girls growing up in the self-built settlement of Sathyanagar during the second half of the 1990s were, as opposed to boys, confined to their homes or, at best, the immediate vicinities (Bannerjee and Driskell 2002). Thus, while boys were able to expand the basis for their production and acquisition of embodied-experienced spatial knowledge by taking farther and farther trips to other nearby settlements on their own, girls were basically trapped in the constant reproduction of the same sources of reference.

A similar effect can be seen among Bolivian children in La Paz (Serrano 2015) who, due to the very few chances they had to explore public spaces on their own, had a hard time coping with conflicts involving other older children or adults. For instance, playing can be infused with conflicts among children themselves (e.g., monopolization of particular public spaces) and traversed by uneven power relations with adults, whose widely differing views on public space can lead to altercations. Because they had almost no experience dealing with friction or animosity, these young Bolivians likely never learned to negotiate their presence in public space.

All in all, the sampled studies we have reviewed so far reveal how blatant parental boundaries and mandates are, as well as how inconspicuous their effects on young people's spatial knowledge can be. For instance, the restricted environmental proficiency resulting from omnipresent rules related to young people's

embodied-experienced spatial knowledge may even translate into self-reinforcing processes as young people, lured to stay at home by media consumption, miss out on the possibility to explore and discover the (natural/built) environment by themselves. In other words, they somewhat unknowingly contribute to the restriction of their independent mobility and unsupervised play. In the end, young people are actively sustaining the domestication of their spatial knowledge as they gradually retreat into the inner (the home) and accordingly withdrawn from the outer (public space) world.

Throughout this section, the range of meta-analyzed studies illustrates how parents have an ever-present and everlasting influence on the domestication of young people's spatial knowledge; after all, it is their hand that rocks the cradle. Prior to this, we shed light on how public spaces can be designed specifically to conform with preordained notions of how young people should behave and act. Both phenomena converge in one specific instance: spaces of consumption.

Restraint turned into captivation: Social control in spaces of consumption

Over the last five decades, spaces of consumption have gained a great deal of importance among young people as favorite spaces (see Chapter 5). This accounts for all kinds of indoor and outdoor spaces of consumption: convenience stores, cafes, (fast-food) restaurants, shopping promenades, department stores, and especially shopping malls. These spaces appeal to young people because they are suitable for hanging out, meeting friends, strolling around, getting to know other peers, flirting, or simply people-watching. Furthermore, we found that consumer practices and consumer-related activities—such as eating out, watching a movie, bowling, window shopping, or trying out video games—are quite popular as well (Muchow and Muchow 2012 [1935]; Payne and Jones 1977; Van Staden 1984; Apel et al. 1985; Buss 1995; Talen and Coffindaffer 1999; Matthews et al. 2000; Punch 2000; Malone and Hasluck 2002; Swart-Kruger 2002; Zylicz 2002; Seggern et al. 2009; Malone 2013; Ortiz et al. 2014; Díaz-Rodríguez et al. 2015; Serrano 2015; Arends and Hordijk 2016; Sander 2016; Saif 2019).

Whereas in the past young people were not that welcome in (and at times not even allowed to enter) commercial spaces (e.g., department stores) unless they were accompanied by an adult, they are now considered a potential consumer group with (albeit limited) purchasing power. Thus, spaces of consumption have gradually been (re)shaped to attend to their needs and preferences. And yet, as our meta-analysis indicates, there is a twofold, fairly paradoxical trend in young people's perception and assessment of spaces of consumption (see Chapter 5). On the one hand, young people appreciate the safety precautions that many spaces of consumption offer (e.g., security guards, video surveillance) because they grant them a sense of freedom and security that they do not experience elsewhere (including being out of the gaze of parents). To put it differently, young people willingly accept (a degree of) social control in exchange for safety and autonomy. This particular characteristic makes spaces of consumption central to young people in different

geographic contexts throughout our sample (Buss 1995; Matthews et al. 2000; Díaz-Rodríguez et al. 2015; Saif 2019). On the other hand, a few meta-analyzed studies (Swart-Kruger 2002; Gough 2008; Ortiz et al. 2014) are indicative of how social control exerted by adults in spaces of consumption can also lead to the actual exclusion of young people. Oddly enough, young people, rather than giving in to the mechanisms of social control driving them away, use them to their advantage and engage in somewhat playful behavior, with security guards, for instance (Saif 2019), or test the limits of control (Ortiz et al. 2014). Our findings indicate that this is often the case in shopping centers. We next delve into young people's trade-off between social control and their feelings of safety and independence in shopping centers. Afterward, we take a closer look at the complex intersection between social control and young people's enthrallment and resistance in these spaces of consumption.

Trading social control for safety and autonomy: The inadvertent enabling characteristic of shopping malls

The previously described importance of spaces of consumption for young people in various geographic contexts contained within our sample is closely related to the aspect of social control in these spaces and how it inadvertently allows young people to be at ease. For children in Los Angeles, USA (Buss 1995), young people in the East Midlands, Great Britain (Matthews et al. 2000), youths in Lusaka, Zambia (Gough 2008), and young people in Kochi, India (Saif 2019), spaces of consumption are among the few spaces where they are allowed to spend their leisure time without having to be accompanied by their parents or caretakers. Considering the many parental restraints on young people's independent mobility and the unsupervised play described previously, it is actually rather unsurprising that spaces of consumption (notably, shopping malls) speak to these researched young people. More specifically, the freedom from parental supervision, which spaces of consumption offer, is very much appreciated to the degree that young people consciously use their time there to pursue practices they would be otherwise not allowed—for example, flirting (Gough 2008; Saif 2019).

Along with such latitude to act and behave as they choose, the perceived safety is another relevant affordance with which young people are presented in spaces of consumption. For example, for US-American children (Buss 1995), young Britons (Matthews et al. 2000), Spaniards (Díaz-Rodríguez et al. 2015), and Indians (Saif 2019) spaces of consumption—first and foremost shopping malls—are so popular precisely because of the sense of security they represent. Furthermore, young people assert and attribute their safety to the presence of security guards, surveillance cameras, a large amount of public traffic, and adult consumers. Consequently, shopping malls turn out to be spaces attuned to certain spatial practices of young people. Researched young Indians, for example, use shopping malls as safe spaces to meet peers they have met online (e.g., via social media) in person for the very first time. They therefore regard shopping malls as a "secure 'testing ground'" (Saif 2019: 10), where online activities can be transformed into offline activities

with social control, in this case enacted by way of surveillance and security guards, being perceived as an enabling (as opposed to exclusionary) factor.

Similarly, the study on children growing up in five 1990s Los Angeles neighborhoods (Buss 1995) makes a particularly strong case for the high relevance of shopping malls as safe environments within a larger unfriendly, and thus allegedly dangerous, urban landscape. For these young Angelinos, spaces of consumption—in particular, the shopping malls of their choice—constituted "secure alternative places" characterized by "cleanliness, tidiness and order" (Buss 1995: 349). In addition, these researched children found and capitalized on opportunities lacking elsewhere: "Within these protected enclaves, children say they feel they are able to experience a 'freedom' and mobility […] which they do not enjoy in the 'naturalistic' settings around their homes or schools" (ibid.). They could meet friends and hang out or roam around freely, too, given that everything they feared about their neighborhoods was "essentially edited out of the mall environment" (ibid.). Just like the young Indian people in Kochi, these US-American children took shopping malls to be welcoming and comforting spaces, where they could be at ease and away from a hostile outside world. We contend that this perception is rooted in the disposition of young people to accept a certain amount of social control in exchange for security and freedom. However, social control is not something all young people readily accept, nor is it always optional.

The intricate dynamics of shopping malls: Young people torn between fascination and sophisticated alienation

In addition to the perceived safety that spaces of consumption offer young people and their parents in different geographic contexts, our meta-analysis also reveals that young people have ambiguous feelings toward social control in shopping malls in particular. For instance, while children in Los Angeles (Buss 1995), Santa Cruz de Tenerife (Díaz-Rodríguez et al. 2015), and Lusaka (Gough 2008) perceived shopping centers positively (though the young Zambians suffered from palpable exclusion), young Britons in the East Midlands (Matthews et al. 2000), young Indians in Kochi (Saif 2019), and Spanish adolescents in Barcelona (Ortiz et al. 2014) felt ambivalently toward them. In the last three meta-analyzed studies, young people's spatial perception is seemingly torn between an appreciation for the safety and comfort and a rejection of the expulsion resulting from the social control in shopping malls. For example, young people in shopping malls are often asked by security guards to move and hang out somewhere else (either inside or outside the mall). Young people may even face claims of alleged shoplifting because their actions and behavior do not conform with the rules. Consequently, as demonstrated by the study on young Britons who regularly visited five malls in the East Midlands, this bigotry and alienation may cause young people to develop "feelings of social exclusion and of being outsiders within the public realm" (Matthews et al. 2000: 289). Specifically, interviewees said they felt "angry, bad, not trusted, like a criminal, stupid, dodgy, paranoid, judged, guilty, insecure and victimized" (ibid.), which shows that spaces of consumption in general, and shopping centers

in particular, "are commonly interpreted to be an extension of the public realm of adults (in which young people have no place when adults are around)" (Matthews et al. 2000: 288).

Although this sentiment is echoed by the Indians (Saif 2019), Zambians (Gough 2008), and Spaniards (Ortiz et al. 2014) from our studies, some of these young people did not simply let themselves be bossed around and eventually managed to develop coping strategies and tactics. By and large, the young people employed two predominant strategies when chased away: either they chose another hangout inside the mall, or they left for a short time and then returned afterward. In any case, we argue that young people are able to maintain their appropriation and territorialization of spaces inside shopping malls. Another, albeit more daring and disruptive, strategy is testing the limits of the rules regarding the actual consumption of merchandise. Some of the adolescents in Barcelona, for example, admitted to having purposefully tried on clothes and make-up without the slightest intention of buying anything and to sneaking into the movie theater without paying (Ortiz et al. 2014). From playing tag with the security personnel to violating the rules of adult-oriented consumerism, these coping strategies could be seen as "counter-hegemony or a manifestation of a cultural politic that challenges their marginality" (Matthews et al. 2000: 290).

All things considered, young people have proven to be quite resourceful. Thus, rather than putting young people under the spell of consumerism and expected good behavior, spaces of consumption constitute latent conflict-ridden domains. In spite of their potentially conflictive character, we consider spaces of consumption to be interesting and captivating to young people because they do not feel as detached from society there (as opposed to when they are in child- and youth-dedicated spaces, for example). In fact, the experience of having to share space with other shopping mall users and having to trade off their presence and preferred activities is a valuable non-formal learning process in and of itself (see Chapter 6 for a discussion on how shopping malls are turned into identity-formation and training grounds). Therefore, spaces of consumption are where young people try and often manage to gain access to the public realm as a primary adult domain. By decoding the materiality-normativity interplay that underpins the spatial settings of shopping centers (see Chapter 6), they are able to produce and acquire the spatial knowledge required to negotiate their presence and uses and to deal with any resulting conflicts. In the final section of this chapter, we pay closer attention to how young people base their coping strategies and tactics on their produced and acquired spatial knowledge.

Daring to defy domestication: Young people's strategies and tactics for coping with social control and spatial pedagogization

As we discussed throughout the previous sections, young people's spaces and spatialities are increasingly shaped by social control and spatial pedagogization. Contributing factors include the diversification of modes of social control in public spaces, the creation of child- and youth-dedicated spaces, parental restrictions,

and the growing importance of spaces of consumption as highly controlled—yet attractive—spaces for young people. Accordingly, these factors traverse and limit young people's production and acquisition of spatial knowledge. However, as effective as some of the previously analyzed mechanisms may be, not all young people are passive recipients of social control and spatial pedagogization. On the contrary, they have the ability to overcome them. Furthermore, it should be noted that, according to our meta-analysis, young people's coping strategies and tactics react not only to social control and spatial pedagogization but also to (perceived) spatial limitations in general.

Previously, we examined the spatial practices of young people vis-à-vis the uses intended by design and planning experts for the physical arrangement of spaces. On the one hand, children (notably in the case of playgrounds) and youths may comply with the intended materiality of spaces, both explicitly and implicitly (e.g., swinging on a swing). On the other hand, we also underscored spatial practices of young people that adults deem deviating uses of space, for they differ from the envisioned ones (e.g., dancing on a soccer field). Given that young people are not purposely seeking to challenge social control or spatial pedagogization in these cases, but instead are intuitively discovering alternative uses and exploring affordances, we do not address them below.

Our underlying premise is that young people are well aware of the spaces in which adults expect them to spend their time. Likewise, they are conscious of the spaces where they are subject to scrutiny (e.g., shopping malls). We believe that the spatial cognizance (see Chapter 6) young people develop under these circumstances forms the basis for their coping strategies and tactics in the face of both social control and spatial pedagogization. Moreover, we have identified three distinguishing types of strategies in response to social control and spatial pedagogization across our meta-analyzed studies: (i) creative appropriation and production of spaces, (ii) communicative negotiating of spatial designs and uses, and (iii) struggling with spatial conflicts and the violation of spatial limitations. The spatial knowledge underpinning all these strategies is highly relevant for young people's everyday lives, for it enables them to shape their spaces and spatialities as active agents. Our findings indicate that this accounts for young people growing up in diverse geographic contexts and settings (from urban to suburban to rural) across the Global South (Bannerjee and Driskell 2002; Jaramillo 2011; Arends and Hordijk 2016; Beazley 2016; Geertman et al. 2016; Agha et al. 2019) and Global North (Muchow and Muchow 2012 [1935]; Berg and Medrich 1980; Apel et al. 1985; Buss 1995; Hitzler 1995; Matthews et al. 2000; Malone and Hasluck 2002; Cummins 2009; Seggern et al. 2009; Ziemer 2011; Ortiz et al. 2014; Gräbel et al. 2015).

Acute spatial perception: The bedrock of young people's coping strategies and tactics

As mentioned above, young people possess a keen ability to perceive and identify distinct spatial traits and qualities: that is to say, they practice *spatial discernment-signification* (see Chapter 6). The various traits and qualities that young people

learn to read and interpret include those that signal that their mere presence and practices are unwanted. For instance, children living in a contemporary urban high-rise community in Bukit Cempaka, Malaysia, highlighted during interviews explicit adult disapproval as the reason why they were not allowed to access (let alone play in) various common areas within the housing compound. In order to offset this impediment, these children claimed some of these areas temporarily to enlarge and enliven their play opportunities (Agha et al. 2019). Similarly, but under extremely different circumstances, homeless Indonesian boys in the city of Yogyakarta not only faced adults' discountenance but also were met with direct violence whenever evictions—so-called "cleansing operations" (Beazley 2016: 179)—were executed by state agencies. Be it just to hang out and play (Malaysian children) or to spend the night (Indonesian homeless boys), young people recognize the spaces where they are not allowed and the reasons why. Driven either by the desire to explore and discover spaces to play or by the necessity to find shelter, young people's spatial cognizance (see Chapter 6) draws on their audacity to defy, sometimes head-on, adults' spatial restrictions. Ironically, such spaces also magnetize young people due precisely to their quality of being forbidden. Moreover, after young people appropriate those forbidden spaces, they frequently become their favorite spaces, which we regard as the epitome of positive spatial perception (see Chapter 5).

In contrast to forbidden spaces, we also found that spaces that are completely accessible to and tailor-made for young people do not always appeal to them. Consequently, young people not uncommonly disregard and avoid such spaces as they do not meet their needs or expectations. For example, US-American children growing up during the second half of the 1970s in Oakland expressed their dissatisfaction with "the unaesthetic schoolyard and the less-than-welcoming character of the park" (Berg and Medrich 1980: 333) in their urban neighborhoods. They, too, were critical of the spatial limitations and lack of facilities. They explained that they would rather play at home and outside or head toward "parking lots and other non-play-oriented public space[s]" (ibid.). Similarly, Spanish adolescents living in the Barcelonian barrio Besós-Maresme during the early 2010s (Ortiz et al. 2014), which had undergone palpable urban renewals during the years prior, avoided spaces allegedly conceived to suit their needs and preferences and sought out spaces that offered them a sense of privacy (such as an arbitrary bench somewhere in the neighborhood). Likewise, children from a small German town in the early 1990s realized that the child-dedicated spaces accessible to them left no room for self-determined play. Thus, they stayed away from them (Hitzler 1995). Interestingly enough, German children growing up in the city of Herten during the early 1980s were drawn to child- and youth-dedicated spaces, enticed by their busy atmosphere and the chance to interact with other older users (Apel et al. 1985).

As illustrated in these cases, young people's spatial cognizance (see Chapter 6), as the bedrock of their coping strategies and tactics, is receptive to both the affordances and restraints embedded in the design and materiality of spaces readily available to and explicitly intended for them. In other words, young people read, interpret, and evaluate spaces, in turn identifying different forms of social control and spatial pedagogization. And, should their needs and preferences not

be met, young people are not intimidated or deterred by the rules (*explicit spatial pedagogization*) and physical boundaries (*implicit spatial pedagogization*); instead they set their spatial discernment-signification (see Chapter 6) into motion, boldly performing their agency and attempting to appropriate space. Subsequently, we shed light on such chain reactions.

Toe-to-toe with social control and spatial pedagogization: A threefold coping strategy

Young people's strategies to cope with social control and spatial pedagogization can be distinguished along three lines (see Figure 7.2). The first line entails spatial practices of creative spatial appropriation and ensuing spatial production. This first set of strategies encompasses a variety of rather subversive actions and, compared to the other two sets, seems to be more frequent. The second line deals with the communicative negotiation of spatial uses and designs—an instance that seldom occurs. The third and last line involves grappling with spatial conflicts and the transgression of spatial limitations. In this regard, young people consciously cross borders, overlook prohibitions, break rules, or even deliberatively pick a fight over the use of space. This third set of coping strategies, like the second one, does not come about very often in our meta-analyzed studies. Furthermore, it is worth pointing out that distinctions between these three types of coping strategies and tactics serve descriptive-analytical purposes—when young people use them, they might sometimes overlap with and complement each other.

By appropriating and producing spaces, young people demonstrate that spaces attributed to them—especially child- and youth-dedicated spaces—hardly ever adequately meet their needs and likings. At the same time, young people attempt to appropriate and produce spaces as a reaction to prevailing conflicts over specific uses of space. Thus, they seek to take over other non-conflict-ridden spaces and expand their spheres of activity with the aim of producing spaces that suit their needs. A case in point is US-American children growing up in mid-1970s Oakland who primarily performed their spatial practices of play (see Chapter 6) in "non-play-oriented public space[s]" (Berg and Medrich 1980: 333) such as streets and sidewalks, backyards, open spaces, and bustling commercial streets. While the characteristic conditions of these spaces, like heavy traffic, could deter young people from playing there, they are temporarily reinterpreted and repurposed as fitting spaces of play. Therefore, young people not only refuse their dedicated spaces but also appropriate and produce their own spaces of play from less use-specific ones. Similar practices could be observed among young people in Argentina (Jaramillo 2011) and Germany (Apel et al. 1985; Hitzler 1995).

Moreover, to overcome a lack of (play) spaces meeting their demands and to avoid regulated and specialized spaces, young people simply stay home and play in their backyard, if they have one at their disposal, where they can pursue their self-determined spatial practices (of play). Our findings indicate that this kind of coping strategies and tactics traverses diverse geographic contexts, is present throughout the time span of our sample, and is perceptible in both the Global South (Bannerjee

and Driskell 2002) and Global North (Berg and Medrich 1980; Apel et al. 1985; Buss 1995; Malone and Hasluck 2002). Another alternative young people resort to is occupying a range of micro-spaces (see Chapter 5) that are rarely used. Young people in Argentina (Jaramillo 2011), Australia (Malone and Hasluck 2002), Canada (Cummins 2009), Germany (Seggern et al. 2009; Gräbel et al. 2015), Indonesia (Beazley 2016), Spain (Ortiz et al. 2014), and the USA (Buss 1995) frequently appropriated spatial niches that, from the point of view of adults, might seem unorthodox for play, such as wastelands and parking lots. Besides playing, young people also used these micro-spaces in order to gain (some degree of) privacy and autonomy. For instance, for Canadian children growing up during the early 2000s on farms located in rural Southwestern Ontario, tree climbing was an effective way to escape adult supervision. At the other end of the spectrum, given the harsh living circumstances they have to endure, homeless Indonesian boys living on the streets of the city of Yogyakarta made use of micro-spaces to satisfy basic needs. For example, they appropriated and redefined a public toilet as their hangout, meeting place, and way to escape police surveillance and assaults (Beazley 2016). In a similar yet distinctive manner, US-American children living in five urban neighborhoods in 1990s Los Angeles (Buss 1995) not only territorialized overlooked micro-spaces but also created them themselves. As the study's author sustains, drawing on pictures taken and journal entries written by the researched children:

> With words and pictures, the children tell us how they resist spatial domination, and engage in creative activities within the urban setting. They show how they claim spaces as their own, and how they establish a small degree of spatial hegemony within the larger materiality of the city […]: […] "Here are flowers that I planted. I like flowers because they are colorful. I fill [sic.] happy to see them." […] Using special objects and artifacts, the children engage in place-making activities and imbue their ecological niches with meaning. They describe feelings of belonging and emotional attachment to pieces of public art or landmarks which give them a sense of comfort and control over the spaces they occupy and navigate.
>
> (Buss 1995: 350)

What is striking about these examples of the first set of coping strategies and tactics is that, rather than altering the materiality of their preferred micro-spaces to come up with unexpected new uses, young people simply uncovered hidden and unintended affordances (see Chapter 5) in their constitutive elements. In other words, the appeal of micro-spaces rests on the availability of affordances that allow for subtle, though adroit, spatial (practices of) appropriation. At the same time, the appropriation of micro-spaces may entail unanticipated and somewhat unfortunate consequences. For instance, some of the young Australians in our sample who lived during the second half of the 1990s in the suburb of Braybrook, Melbourne, "either limited their movements or only moved around in groups" in order to negotiate their parents' media-driven fears "that if young people were in public spaces, they were likely to get caught up in deviant behaviour, either as victims or perpetrators"

(Malone and Hasluck 2002: 101). Yet, doing so brought about unexpected, negative upshots, for

> [a]dopting the strategy of staying in groups often meant that they were targeted as 'gangs.' To prevent this outcome, they hung around in dangerous places (for example behind shops or in secluded areas of parks), thus increasing the likelihood of becoming a victim.
>
> (ibid.)

As this case illustrates, the appropriation of micro-spaces, though meant to compensate for a specific issue (the gang stigma), can potentially lead young people to fall into other even more troubling situations.

In addition to using micro-spaces as niches to shelter themselves from a hostile social and built environment, another coping strategies and tactics is using and even producing temporal niches. To that end, young people recognize and take advantage of fleeting windows of opportunity—for example, they target and appropriate certain spaces when there is barely anyone there. Vietnamese youths, for example, frequently took over a central plaza in the city of Hanoi either during working hours or late in the evening to make sure that nobody else would be there (Geertman et al. 2016). Similarly, Malaysian children temporarily used spaces within the urban high-rise community where they lived, located in the city of Bukit Cempaka (Agha et al. 2019). For instance, the community hall, which remained closed if there were no events scheduled, was used to play hide and seek. In this regard, these children seem to have developed refined observation skills:

> [They] use small windows of opportunity in between the moment adult meetings and activities are over and when the door is finally locked to claim that space for play. Within this slither of time, that the children access this physical space for play and in this example that we see children's savvy ability to make use of limited opportunities to access space for play. By sneaking in and creating play opportunities, children are able to claim formal and conventional adult space and make them their own.
>
> (Agha et al. 2019: 699)

Aside from the community hall, a parking deck where adolescents usually hung out attracted these children as well. Similar to the previously mentioned Vietnamese youths, patience played a significant role here, for the children had to wait until all the adolescents were gone before they dared to enter the deck. The cases of the community hall and parking deck both illustrate the use of complex negotiation skills:

> In communal spaces where children's access was ambiguously permitted and those older in age are given prerogative over space, children negotiated access by finding the right time to access such spaces. […] All of the children's negotiating tactics […] can be said to reflect children's social agency in shaping

> their own play realities. […] The thrill and excitement gained from negotiating, claiming, imagining, inventing and resisting contributes to the play experience. […] Children extend and expand whatever spaces [are] available to maximize their play experiences giving us an awareness of geography as not just spatial, temporal, social but also invented and imagined.
>
> (Agha et al. 2019: 702)

Another coping strategies and tactics used by young people is to frequently move between spaces. For example, the homeless Indonesian boys referred to above implemented this strategy on a small and large scale. Given the need to circumvent state measures of control and displacement, these youths were constantly on the move. As a consequence, they navigated the streets between multiple spaces (including public toilets as their strongholds) and, if needed, moved to other cities (Beazley 2016). Along similar lines, albeit to pursue leisure activities rather than escape police oppression, young Britons from the East Midlands moved from one space to another within their favorite shopping mall to stay away from adult control and authority (Matthews et al. 2000). Interestingly enough, these "catch me if you can" dynamics end up being a leisure activity in and of itself given the playful manner in which young people interact with security personnel. As a result, the shopping center reveals itself as "a radical location where young people can attempt to redefine their position in both cultural and geographical space" (Matthews et al. 2000: 290). Both cases—that of homeless boys in Indonesia and that of young Britons frequenting malls—demonstrate that young people's coping strategies and tactics do not exclusively lead to the appropriation of distinct spaces. Appropriation can be used as a means of survival or playful self-positioning (see Chapter 4 for a discussion on the practices of being mobile in the context of young people's everyday spatialities).

Finally, with the advent of widespread access to digital devices equipped with mobile Internet, young people turn to new media to demarcate and protect their own virtual spaces (see Chapters 4 and 6 for a discussion on virtual spaces with regard to everyday spatialities and spatial settings of non-formal learning). For example, for young Armenian girls living in the Russian city of Krasnodar, virtual spaces functioned as a "means to create a space where one can communicate with others" (Ziemer 2011: 233), thereby escaping the racism and sexism they recurrently experienced in public spaces. Likewise, young Peruvian girls growing up in disadvantaged neighborhoods on the outskirts of Lima resorted to virtual spaces in the face of the increasing appropriation of public space by adults. These girls used social network sites (SNS) in particular to avoid adult supervision:

> As adults play their part in "privatizing" public space in physical space, youngsters in their turn seem to find deliberate ways to privatize their usable space in the virtual domain. […] By audience management the youth can maintain control over the structure of their SNS account while at the same time having a significant audience that can witness and acknowledge their acts and expressions in "public" life.
>
> (Arends and Hordijk 2016: 243)

All in all, the various examples of the first set of coping strategies and tactics we have described illustrate that young people counteract social control and spatial pedagogization by appropriating and producing, albeit temporarily, (virtual) spaces of their own. When confronted with limited access and opportunities to use certain spaces and/or potential conflict with other (older) users, young people use this first set of coping strategies and tactics. Consequently, we argue that the production and acquisition of spatial knowledge by young people include an ability to define and assert their spatial requirements and preferences, as well as an awareness of latent conflicts over the use of space.

The second, and notably infrequent, set of coping strategies and tactics employed by young people comprises the communicative negotiation of spatial uses. Within our sample, two cases are quintessential. On the one hand, young Vietnamese in the city of Hanoi were frequently antagonized by security guards in charge of enforcing rules of behavior in public spaces, for their spatial practices were deemed nonconformist (Geertman et al. 2016). To cope with this disagreement, these youths engaged in discussions with the security guards in an attempt to negotiate the actual necessity and appropriateness of certain rules. They diplomatically presented their point of view and, eventually, achieved "considerable flexibility" for some rules (Geertman et al. 2016: 606). On the other hand, German children in the city of Herten countered their perceived lack of adequate spaces by producing a permanent space for themselves. Accordingly, they formed a self-organized group to conceive and build a hut. Throughout the whole process, these children successfully and competently negotiated the implementation of their devised plan with various departments in the city administration (Apel et al. 1985). As these two cases show, young people can informally negotiate temporary uses of (public) spaces and participate in official negotiations to pursue the realization of their ideas and proposals. In our view, young people stand up for their interests and enact their agency for precisely this purpose.

The third set of coping strategies and tactics young people use to deal with and, to a greater or lesser extent, oppose social control and spatial pedagogization can be best described as consciously and deliberately crossing borders, ignoring prohibitions, and breaking rules. The activity spaces of young Bangaloreans in the self-built settlement of Sathyanagar, for example, clearly deviated from parental constraints (Bannerjee and Driskell 2002). Therefore, while parents defined certain spaces as off-limits (e.g., a military compound), "in nearly every case, the restrictions identified by parents did not seem to be uniformly followed by the children, with their actual range of movement differing from the range established by their parents" (Bannerjee and Driskell 2002: 150). Children obviously transgress the boundaries their parents set and thereby design their spatialities a little more freely than their parents seem to realize.

Rather than dealing with parental limitations, immigrant African boys whose families had moved to the suburb of Braybrook in Melbourne had to face restrictions set by neighbors and even state authorities (Malone and Hasluck 2002). Specifically, to confront the social control exerted primarily by the police and continuous

attempts by adults to oust them from public space, these young Africans hung out on the streets and asserted "territorial ownership" over them (Malone and Hasluck 2002: 96). Furthermore, their appropriation of the streets did not go unnoticed and, to be sure, was met with resistance and blatant racism. As one interviewee put it:

> I left Somalia when I was thirteen and after spending almost a year in refugee camps in Kenya and Queensland, my family ended up in Braybrook with my parents and ten brothers and sisters. We all live in a house. Like the other African boys, we stand out because we're tall and have black skin. So we are often hassled by police and Anglo youths. They got no respect. So we hang together in a large group, even the young ones, but some of the locals find it intimidating. In a group we go where we want, we stick together and make decisions.
>
> (Malone and Hasluck 2002: 96)

These immigrant African boys deliberately gathered together and consciously accepted that their neighbors perceived this as intimidating. As such, their act is a daring and blatant statement. At the end of the day, however, these boys were in fact coming into conflict over the use of, and thus counteracting their exclusion from, public space.

Interestingly, this third set of coping strategies and tactics, though not as typical as the first set, can be traced back even a couple of decades before the beginning of our sample's time span: the 1970s. Young Germans growing up during the 1920s and 1930s in urban areas of the city of Hamburg snuck into shopping facilities where they knew they were not allowed (Muchow and Muchow 2012 [1935]). Similarly, another meta-analyzed study on US-American children living in urban neighborhoods in 1970s Oakland (Berg and Medrich 1980) shows how young people may go to great lengths to implement the third set of coping strategies and tactics. These children jumped over fences to either hang out in vacant lots or trespassed into apartment complex swimming pools to take a dip before security guards saw them out. Driven by the thrills of getting caught, and bolstered by audacity, this third set of coping strategies and tactics enables young people to turn the refusal to comply with social control and spatial pedagogization into an exciting game. In other words, these young German and US-American children saw their opposition and play as one and the same, even if only momentarily. It is worth noting that the previously mentioned African boys in Melbourne, albeit for quite different purposes, also used their opposition of social control and spatial pedagogization as a means to assert themselves against the people in a position of authority attempting to exclude them.

Although we presented them each separately, the three sets of coping strategies and tactics young people employ to deal with and oppose social control and spatial pedagogization (see Figure 7.2) are at times closely related to one another. Moreover, while our findings suggest that the first set is dominant, for it is much more recurrent, we do not deem consider this to be conclusive. This relates not only

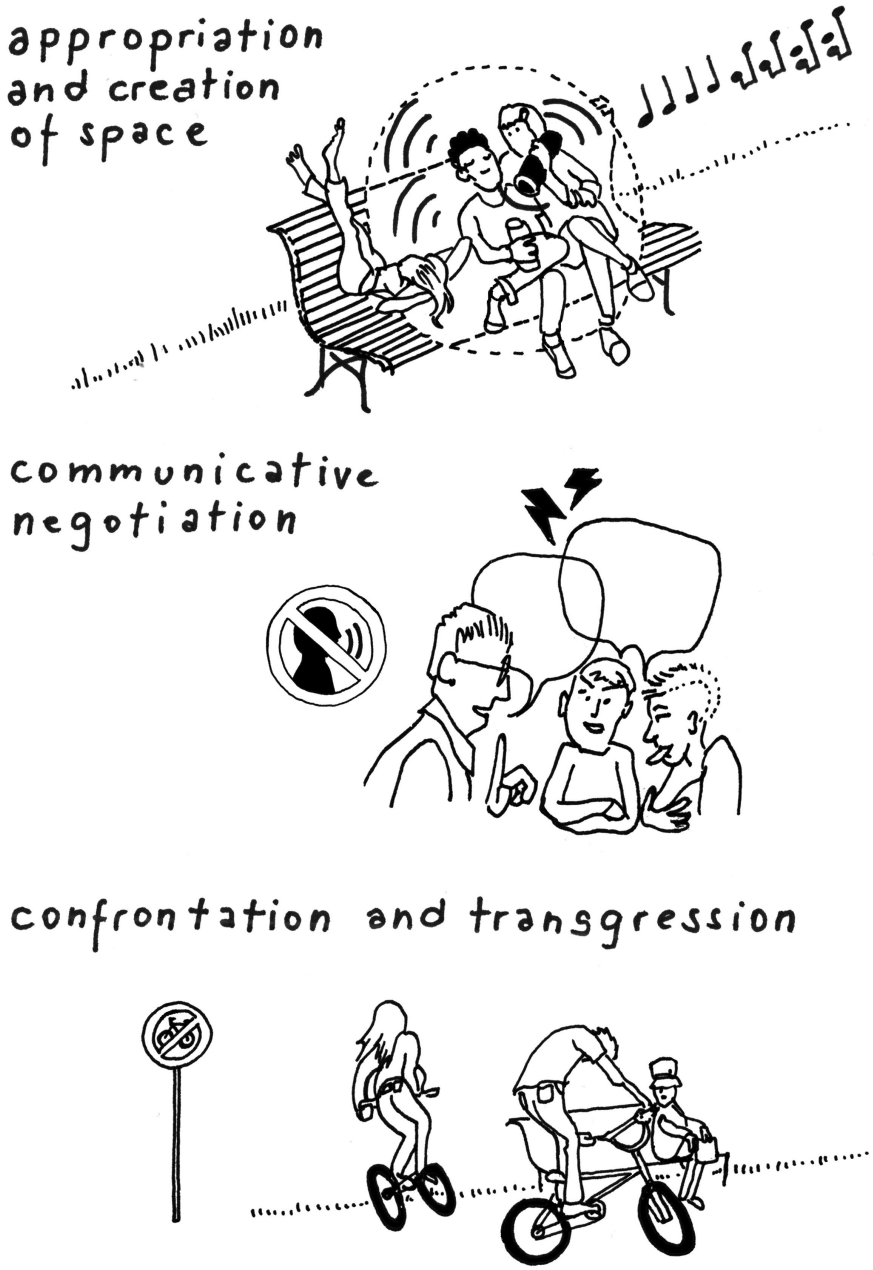

Figure 7.2 Young people's coping strategies and tactics in the face of social control and spatial pedagogization. Graphic: Grit Koalick, visuranto.de, based on our elaboration.

to the sample (although its size is considerable) but also to the fact that the different sets of coping strategies and tactics could be seen as different variations of the same. For example, the fact that young people make use of temporal niches to use certain spaces—which we discussed as a form of spatial appropriation—could be interpreted as a way to negotiate with other users. Likewise, some of young people's coping strategies and tactics of confronting spatial limitations through transgression could also be regarded as a means of spatial appropriation. Hence, coping strategies and tactics to oppose social control and spatial pedagogization, however different they might actually be (for example, subversive or confrontational), have overlapping characteristics. But it is perhaps more relevant to consider what the coping strategies and tactics enable young people to achieve: from extending their activity spaces and fighting back against bigotry and alienation to playfully testing the limits of control. In this regard, we understand the creativity and agency of young people underpinning the use of their coping strategies and tactics as an integral part of their spatial knowledge production and acquisition.

Grappling with social control and spatial pedagogization goes on: The spatially refigured domestication of young people's spatial knowledge

The results we have synthetized in this chapter as the last stage of our qualitative meta-analysis (see Chapter 3) offer an overview of adults' attempts to spatially restrict the spatial knowledge of young people—especially by means of social control and spatial pedagogization. In order to deconstruct and clarify this phenomenon, we looked into the various ways it influences young people's spatial practices, spatial perception, and activity spaces. By and large, our meta-analysis indicates that, as a key characteristic of the refiguration of spaces (see Chapter 2), more and more spaces, and consequently also times, of childhood and youth are imbued with social control and spatial pedagogization. Moreover, this bears manifold consequences for young people's everyday spatialities and, ultimately, their spatial knowledge.

As demonstrated throughout the chapter, young people endure and grapple with a type of social control that is exerted on them in a growing number of public spaces and whose mechanisms not only hinder their spatial practices but also seek to keep them away altogether. Hence, public spaces are in many contexts rendered almost de facto an adults' realm. At the same time, young people are increasingly relegated to child- and youth-dedicated spaces. And, though these spaces are ostensibly designated to cater to young people, they do not always meet their needs, preferences, and expectations. One reason for this is the prevalent spatial pedagogization characteristic of child- and youth-dedicated spaces, which is meant to both determine and limit young people's spatial practices. Similarly, spaces of consumption, whose degree of publicness is rather diffuse, have been gaining traction

among young people despite the high level of social control they experience there. Furthermore, personal social control seems to have been substituted with structural social control, which is exerted more systematically by state authorities in various societies, which in turn legitimizes its use substantially. In addition, the rise in domestication—focused on young people's homes, child- and youth-dedicated spaces, and indoor spaces of consumption—helps render adult supervision ubiquitous.

Likewise, although not as glaringly, spatial pedagogization shapes young people's spatial practices in many public spaces and is epitomized by child- and youth-dedicated spaces. As a result, pedagogic considerations are both implicitly and explicitly inscribed into the materiality of spaces and times of childhood and youth. These material inscriptions, when seen through the sensitizing concept of *polycontexturalization* (one of the three underlying theses of the refiguration of spaces; see Chapter 2), reveals how young people are embedded in spaces whose dedicated character results from different and intersecting spatial and pedagogical logics. As a consequence, young people have to come to grips with multiple heterogenous spaces, which shape their actions to varying degrees. On playgrounds and in sports facilities, as examples par excellence of child- and youth-dedicated spaces, various spatial logics coalesce since the design of these spaces is embedded in and results from complex processes of spatial planning and design. Objectives and logics of various stakeholders of urban development (e.g., green and open space planning, municipal finances) are considered in this process. Additionally, societal discourses (e.g., on noise emissions) shape the planning and design. All these different influences on the respective design come to bear in young people's spatial practices and polycontexturally (re)shape them. Spatial pedagogization, as a concrete upshot of polycontexturalization, does not encourage self-determined spatial practices, thereby setting off an intuitive process of discovery. Instead, it presents young people with spatial arrangements, disguised as dedicated spaces, that either subdue or exclude them.

Overall, these developments impact young people's everyday lives considerably and, by extension, their spatial knowledge. To start with, young people's activity spaces are significantly reduced and more homogenous. Also, while spaces of childhood and youth become increasingly separated from those of the wider (adult) public, young people, somewhat paradoxically, are allowed to spend less and less time unsupervised to pursue their own interests and preferences. Thus, in view of the growing mediation of adults (parents and caretakers alike), young people have fewer opportunities to roam freely and determine their own spatial practices (of play; see Chapter 6). Likewise, spatial pedagogization seeks to predetermine uses of child- and youth-dedicated spaces, whose equipment and amenities more often than not foster non-communicative and solitary spatial practices. Given these points, we see the spectrum of young people's spatial practices

being progressively reduced and controlled by adults. Worryingly, our findings show that this restriction of young people's spatial knowledge affects boys and girls unequally—with girls bearing the brunt of the control.

These sharp gender differences notwithstanding, we also observe that girls and boys alike manage to devise and implement coping strategies and tactics in response to social control and spatial pedagogization. Young people creatively appropriate and produce spaces of their own to accommodate their preferred spatial practices, engage in communicative negotiations regarding spatial uses, and overcome conflicts head-on by deliberately transgressing spatial limitations. In this regard, we see that, while the refiguration of spaces comprises increasing social control and pedagogization of childhood and youth, young people are able to produce and acquire counteracting spatial knowledge.

Finally, we expect that the mediatization of young people's (communicative) actions through digital technologies (see Chapter 2) is likely not only to trigger fundamental changes concerning social control and parental supervision but also to counterbalance the coping strategies and tactics of young people. Within our sample, we identified a few instances of this. Young Portuguese's access to the Internet is restricted by their parents, who interfere as "informed digital tutors of their children, setting rules and recommendations in order to control time spent on the Internet" (Almeida et al. 2014: 7). Thus, parents regulate their children's online activities. At the same time, and as an emerging type of coping strategies and tactics, young people take advantage of their digital literacy to find ways around parental restrictions, thereby liberating and gaining control over (their) virtual spaces. In this sense, the previously mentioned Peruvian youths stated that they preferred not to share their online social media presences with their parents. Thus, they use "audience management" (Arends and Hordijk 2016: 242) to minimize adult control in virtual spaces. Moreover, this suggests that virtual spaces might become a rather liberal space of possibilities that offers new freedoms for young people's identity formation—especially for girls (Arends and Hordijk 2016). Accordingly, virtual spaces could constitute a way for girls in particular to circumvent and compensate for the strong restrictions imposed on them by their parents. Against this backdrop, we can anticipate conflicts over the use of virtual spaces between adults (notably, parents) as *digital immigrants* and young people as *digital natives*. Accordingly, we would expect tensions to arise as young people—particularly young girls—turn more and more to virtual spaces to gain autonomy, challenge the oppressive effects of social control and spatial pedagogization, and broaden their sets of coping strategies and tactics. However, young people have proven to be neither passive recipients nor incapable of counteracting the domestication of their spatial knowledge. This, we argue, represents a promising field for future empirical research on young people's spatialities and their spatial knowledge.

Note

1 A person's activity space describes the sum of all the spaces relevant to their everyday life. Focal points are the individual spaces relevant to a person, the activities pursued therein, the temporality of activities (e.g., timing, regularity, duration), and the spatial pattern of these spaces (e.g., geographic location and distribution of spaces, spatial expansion of activities; Hesse 2010; Scheiner 2018; Cagney et al. 2020). Accordingly, it "is a spatiotemporal construct that captures the set of places individuals encounter as a result of their routine activities" (Cagney et al. 2020: 624).

8 The evolution of young people's spatial knowledge

Overarching findings, connections, and takeaways

Our *spatial knowledge* is shaped not only by the experiences, activities, and spaces we use and frequent in everyday life, but also by the spaces we have only visited once or even those we have never experienced firsthand. Through our *qualitative meta-analysis*, we targeted the evolution of the spatial knowledge of young people over the past five decades, analyzing it within the context of the *refiguration of spaces*. In what follows, we highlight the most striking findings, which have been presented in depth in the preceding empirical chapters. In so doing, we turn our attention to and underscore decisive underlying factors and conjunctions that have had direct bearings on the evolution of the spatial knowledge of young people. By and large, our findings are indicative of (see Figure 8.1):

- How the everyday *spatialities* of young people have become more pluralized and heterogeneous as their four characterizing *features* overlap one another, and thus become entangled. In addition, how young people come to terms with the resulting growing complexity their spatialities entail.
- How the spatial perception and assessment of young people—in particular, when drawing temporal (*before-and-after*) and spatial (*here-and-there*) comparisons—have grown more susceptible to the effects of *mediatization* and *translocalization* as a result of greater media consumption, the *hybridization* of spatial perceptions and practices, and increased mobility. At the same time, the criteria underlying imaginative and transactional aspects of the spatial perception of young people have remained relatively stable.
- How effects brought about by economic, political, and social macro transformations have shaped mostly the non-formal learning processes of young people, rendering arenas polycontextural and agencies translocal. Additionally, with the incursion of widespread access to Internet and mobile devices into formal-institutional and non-formal learning processes, young people's production and acquisition of spatial knowledge have undergone a shift from physical, increasingly restricted and controlled arenas and agencies (primarily public spaces) to new and yet-to-be-discovered arenas and agencies (that is, virtual spaces). Formal institutional learning arenas and agencies have continued to revolve primarily around the school—a space young people have tended to denote fairly

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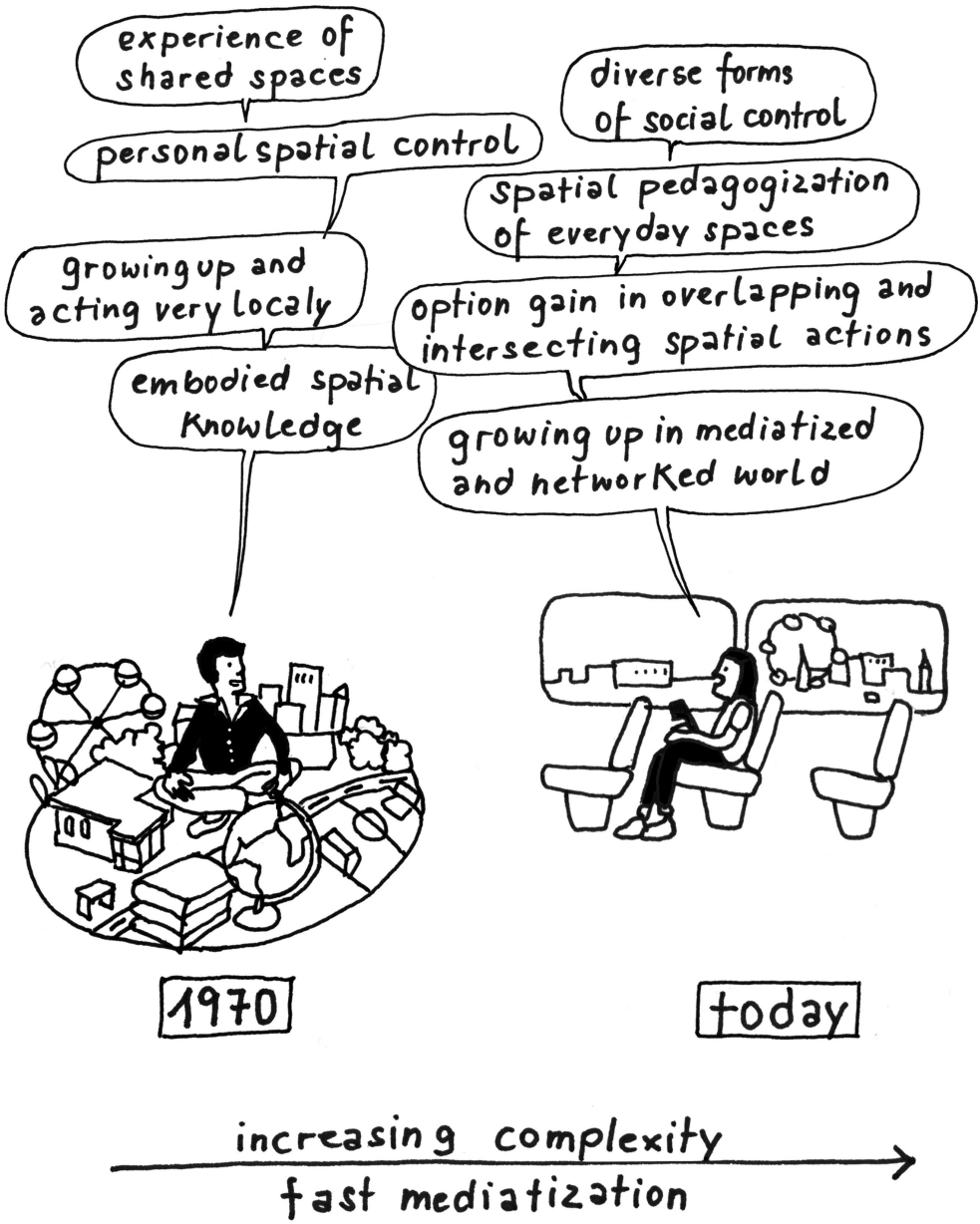

Figure 8.1 Changes between back then and today at a glance: The evolution of young people's spatial knowledge. Graphic: Grit Koalick, visuranto.de, based on our elaboration.

paradoxically and whose potential to develop the spatial knowledge of young people is just beginning to unfurl.
- How more young people are growing up in seemingly contradictory circumstances, caught up in the limits and restricted options catalyzed by *spatial pedagogization* much more attuned and responsive to adults, while at the same time enjoying the virtually endless possibilities of a networked (digital) world. As a consequence, the evolution of the production and acquisition of spatial knowledge reflect the impacts of more, both explicitly and implicitly, pedagogized and controlled spaces. Furthermore, with (digital) mediated spatial knowledge on the rise, the spatial knowledge young people produce and acquire is being shaped less and less by direct sensory embodied-experienced actions.

In what follows, we outline these diverse lines along which we have organized our main findings. To that end, we draw on the different thematic scopes through which we narrowed down the purview of our meta-analysis: everyday spatialities; spatial perception and assessment of material *affordances*; learning arenas and agencies of spatial knowledge production and acquisition; and spatial pedagogization and *social control*. Although we spotted expressions of how spatial knowledge has evolved that pertain directly to each of these ambits, looking at the big picture revealed both points of intersection and overlays—which we decided to emphasize. Together with these overarching findings, we discuss conceptual-methodological tensions we encountered along the way and outline implications for further (spatial) research. As our research may be used to inform and enhance the practice of design and planning, we also want to highlight several takeaways in this regard (Figure 8.1).

As much sequential as coextensive: Entangled and overlapping features in young people's spatialities

In our meta-analysis, we distinguished four features of young people's everyday spatialities that traverse a wide array of geographic contexts and settings (urban, suburban, and rural). Whereas scholars have already been discussing *circumambient spaces around the home* and *insular spatial structures* as characterizing components of the spatialities of young people, we identified in more recent decades the rising importance of practices of *being mobile* as another feature—at times a welcome opportunity for leisure, at others a necessity for survival. Furthermore, the emergence of *virtual spaces* and the ensuing hybridization of spaces must be added to the list. We purposely write "added," because our claim is that today all those features and their fluid combinations shape the spatialities of young people in one way or another and to varying degrees. Accordingly, the everyday spatialities (and thus the spatial knowledge) of young people become more pluralized and heterogenous, given that the features intertwine in manifold fashions under different social, historical, and spatial circumstances. In other words, while some features might become more relevant in one context, they might be less important in others, which in turn gives way to the aforementioned pluralization and heterogenization. Acknowledging the intrinsic limits of our meta-study, we assume that features other than the four we have considered are possible and could be examined empirically in distinct geographic

contexts and settings (from urban to rural). What is more, determining those features and investigating how they would intersect with the four features we identified in our meta-analysis could serve as a starting point for further research.

Moreover, our meta-analysis illustrates that (especially digital) mediatization leaves a pronounced impact on the spatial knowledge of young people. In contrast to the scholarly discourse that propounds virtual spaces as a parallel world to a physical world, our research and that of others (de Souza e Silva 2006; Tillmann 2014) show that a dichotomous demarcation between online spaces and offline realities does not apply from the perspective of young people. Constitutions of space online and offline are mutually dependent and produce new spatial arrangements: so-called hybrid or cyber-physical spaces (de Souza e Silva 2006). In hybrid spaces, the physical and the digital merge and overlap, especially through the use of mobile devices. Thus, we believe that the spatial constitutions of young people today can hardly be understood without considering hybrid spaces. Since there are not any studies yet that illuminate this comprehensively, we see a need for future research to focus on and explain the production of hybrid spaces. Additionally, the importance of hybrid spaces for young people living in the Global South deserves closer attention and analysis. By the same token, one should also shed light on the digital divide and reflect on the future prospects of those young people who are excluded or left behind by technological developments. In view of the growing relevance of virtual spaces for young people, the digital gap creates an uneven geography of the pluralization and heterogenization of their everyday spatialities.

Overall, these changes in young people's spatialities—when read as expressions of their spatial knowledge—signal a transition from a relatively clear delimitation of where and how young people produce and acquire spatial knowledge to instances whose contours are much more diffuse (which suggests that young people might produce and acquire spatial knowledge in overlapping areas between noticeably delineated and scattered ones). Amid this transformation, an increase in complexity demonstrates how the everyday spatialities of young people are determined by entanglements and intersections between their features. This raises various questions, such as where these intersections and combinations of different features in the spatialities of young people come from, what causes them, and what subjective consequences and potentials are brought about.

Contradictory growing pains: Learning to grapple with a spatially pedagogized, socially controlled, and mediatized-networked world

Over the course of the past 50 years, societies and their (built) spaces have changed, dramatically at times. We could see in the various meta-analyzed studies how the effects of accelerated and uncontrolled urbanization (e.g., arresting increases in motorized traffic), transitions in political systems (e.g., from communism to capitalism), and regional or international migration fluxes (e.g., people moving from rural to urban areas or to another country due to displacement or education/economic related motives) have shaped the spatial perception of young people (and, by extension, their spatial knowledge). At the same time, our findings demonstrate that the perception and assessment of everyday spaces—and whether young people

see them positively or negatively—remain relatively stable throughout the time span covered by our meta-analysis. This stability responds to a constant set of criteria young people use to ground their perceptions and assessments of the affordances their frequented spaces offer. Interestingly, spaces of consumption have clearly and consistently gained in appreciation throughout geographic contexts in both the Global South and North. Moreover, while streets have strikingly been subjected to increasing negative perceptions (due to factors such as emissions, a lack of or insufficient infrastructure and maintenance, presence of strangers, and motorized traffic), they still play a fundamental role as spatial settings of non-formal learning for young people—and thus as a central arena where they enact their agency for the production of spatial knowledge. This can be seen, for instance, when young people turn the streets into their socialization domain even in the face of blatant stigmatization and exclusion.

Furthermore, our meta-analysis points out that young people's everyday (indoor and outdoor, as well as private and public) spaces are becoming pedagogized and controlled to a greater or lesser extent—that is, regimented, functionally determined, with a focus on (formal) learning success and safety. As a result, arenas of non-formal learning tend to gradually mirror formal-institutional ones, to the degree that the spatial perception and assessment young people have of the affordances offered by public spaces match the intended uses and behaviors embedded in their material arrangements by way of spatial pedagogization. Child- and youth-dedicate spaces are a case in point, where the learning agency of young people to produce embodied-experienced spatial knowledge is noticeably constrained, and thus substituted, by the agency exerted through the pedagogized material arrangements. Accordingly, spatial knowledge is increasingly acquired by way of the intermediary learning agency of spaces whose configurations are meant to exert social control—be it *personal control* (exercised by family members, especially parents, or the public and enabled by the physical-material disposition of spaces) and/or forms of *structural control* (exercised, for example, explicitly and directly by spatial arrangements intended to regulate spatial practices). To be sure, this dynamic does not exclusively unfold in child- and youth-dedicated spaces, such as playgrounds or educational and care facilities. They are also very much perceptible in a wide array of different public and private spaces: for example, public plazas, parks, street furniture, and shopping malls.

At the same time, our findings show that the spatial knowledge of young people is not as easily tamed as it may seem at first glance. Deploying ingenuity, young people devise a series of coping strategies and tactics to either mitigate (by circumventing) or overcome (in toe-to-toe confrontations with) the effects of social control and spatial pedagogization. From observing and decoding how mechanisms of surveillance operate in spaces of consumption, for instance, researched young people move almost choreographically to evade the presence of security guards. And in a more daring and audacious way, they transgress established house rules by sneaking into movie theaters or trying out products in stores without paying for them. It is worth noting that these coping strategies and tactics are not solely developed and implemented to fight social control and spatial pedagogization. We also see them emerging from, and reacting to, the larger amounts of

time young people in the Global North and well-off young people in the Global South spend in schooling (in the spatial setting of formal-institutional learning) and interacting with home-based digital mediatization concerned with their education (which, at times, leads to their home becoming a sort of "school branch"). When it comes to the perception of such spaces (and times), there are young people who not only favor but also demand child- and youth-dedicated spaces or who greatly value being in their homes—which could be seen as a coping strategy and tactic to counteract negative experiences and perceptions of other everyday spaces they also frequent and use. Moreover, we have discerned how the spatial perception and assessment of young people, in general, are progressively shaped by feelings of insecurity—feelings often shared by their parents as well. Hence, young people adapt, as it were, their spatial knowledge to cope with the challenges posed by spatial pedagogization, social control, and feelings of insecurity.

Radical changes in spatial knowledge: Mediated spatial knowledge on the rise

Against the background of rapidly evolving spatial knowledge, we see that young people today are now more than ever likely to produce and acquire translocal and mediated spatial knowledge. The majority of young people worldwide have access to some kind of media—be it television, movies, radio, or the more current digital media on computers and smart phones (which young people increasingly use for hours at a time). In addition, albeit to a somewhat lesser extent, mediated spatial knowledge is conveyed to young people by means of narrations by adults (notably, parents), print media, and, of course, formal-institutional learning as part of school education. Hence, whereas the spatial knowledge of young people used to be much more local and influenced by corporeal-sensory experiences, through contact with an increasingly mediatized and networked world, young people are now exposed to, and thus acquire, spatial knowledge about other, more distant spaces mediated by objects and artifacts, translocal communications, mobility, etc. Hence, the production of spatial knowledge via direct engagement and interaction with nearby physical spaces has dwindled, thus making the local character of spatial knowledge less relevant. We have indeed detected in our meta-analysis cases of young people who are more prone to grow up with spatial knowledge that is no longer determined by direct sensory and physical embodied-experienced explorations and engagements with their immediate natural and built surroundings but rather increasingly shaped by mediated influxes of information about geographically remote spaces. Either by choice or imposition, these young people develop and enact strategies to reduce contact with outdoor public spaces. In other words, by staying at home (and thus off the streets) or spending more and more time in controlled child- and youth-dedicated spaces (like schools and also malls, which are certainly seen by parents and businesses as space dedicated in part to young consumers), young people have less access to unsupervised conditions in which to produce their embodied-experienced spatial knowledge. Be that as it may, young people have proven ingenious and creative enough to employ coping strategies and tactics

to adapt and even challenge head-on the spatial pedagogization and social control permeating child- and youth-dedicated spaces. Shopping centers constitute a prime example in this respect. Regarded as a spatial setting of non-formal learning that is pedagogized considerably, young people engage with their complex materiality-normativity, and in so doing enact their autonomous learning agency, either to circumvent mechanisms of control rather playfully or even to perform blatant transgressions audaciously to test its limits.

Despite the tendency of young people to be less capable of producing embodied-experienced spatial knowledge, there are several exceptions: young people growing up translocal; traveling or moving between rural and urban settings; experiencing rapid urban transformation; traversing different regions, countries, and cultures; and even those who are homeless. Such biographic trajectories—which may even entail traumatic experiences of displacement and constant harassment—seem to sharpen spatial perceptions and give way to a wide range of embodied-experienced spatial knowledge young people vividly recall and treasure (even long after having left). In the particular case of young people living on the streets, this knowledge is required for their very survival. Furthermore, this becomes apparent within young people's assessments of spaces and ability to compare before-and-after and here-and-there spatial realities (which illustrates how divergent their spatial knowledge may be). Indeed, both assessing and comparing are based on not only corporeal-sensory experiences with nearby spaces but also mediated interactions with remotely located ones.

While regulated and controlled spaces, as well as (digital) mediatization, are gaining in significance for the spatialities of many young people, other sources of spatial knowledge are progressively declining in importance, left aside and eventually written off. This irrelevance-relevance dynamic of spatial knowledge is fueled by economic, social, and political structural changes at the macro level, such as those triggered by the obsolesce of an agrarian economy of subsistence in African countries (e.g., Sudan), as well as by the incursion of capitalism and Americanism in Eastern European countries (e.g., Poland). At the micro level, moving from a rural town to a city (or even to another country) compels young people to prioritize certain stocks of their spatial knowledge over others. In the middle of this macro-micro level continuum, the effects of (deep) mediatization are manifest in the way young people give preference to stocks of spatial knowledge bound to (geographically) distant spatial realities at the expense of their nearby realities. Against this backdrop, we also see a direct impact on the formal-institutional and, perhaps in a more accentuated manner, non-formal learning processes underpinning young people's production and acquisition of spatial knowledge. Considering that young people develop their spatial cognizance (and even literacy) in line with their ability to view the world objectively (that is, when objects, spaces, and their interactions are perceived in a stable way), digital mediatization and the ensuing translocalization represent turning points. Accordingly, our findings suggest sequential changes in learning arenas and agencies that are far from linear and thus not easy to predict. For example, when young people progressively avoid public spaces (which they convert into their "training ground" to produce embodied-experienced spatial knowledge by exercising their autonomous learning agency) and turn to virtual spaces (where they acquire mediated spatial knowledge through intermediating

learning agencies). At first glance, it is tempting to assess here young people transitioning from more dynamic and autonomous non-formal learning settings and activities to more fixed and predetermined ones, via (notably, digital) mediatization, in a definitive way. However, our meta-analysis demonstrates that it is a bit more complex. For one thing, the realm of virtual spaces, as non-formal learning arenas, is quickly being discovered and appropriated by young people. By mastering offline-online interactions, they activate their learning agencies to produce spatial knowledge—but not in the same way as when engaging with physical-material and nearby spaces. At the same time, public spaces, as non-formal learning arenas, are not being abandoned. By means of various their coping strategies and tactics, young people progressively (re)claim these spaces. All in all, rather than a complete transition from ubiquitous public spaces to new and enticing virtual spaces, the non-formal learning arenas and agencies of young people seem to be moving along a continuum between these two poles.

In contrast, the arenas and agencies of formal-institutional learning do not appear to have experienced such striking changes. The school continues to hold its status as the archetypal arena of formal-institutional learning, where spatial knowledge is imparted to young people via the intermediating agency of teachers. From the perspective of the spatial perception and assessment of young people, it is remarkable how the school is valued for constituting not only a vessel for social mobility but also a beloved space or safety anchor, above all for disadvantaged young people throughout the Global South across the different periods of our research. The spatial and temporal overlays between formal-institutional and non-formal learning processes are another noteworthy aspect we came across in our meta-analysis. These intersections mostly take place within the premises of the school and in the homes of young people (in particular, those for whom formal instruction is an imposed parental mandate). Although there were not many examples of non-formal learning unfolding within the spatial settings of schools, we do believe that access to the Internet and digital devices could make it possible to turn collective areas (like schoolyards) into polycontextural arenas of non-formal learning. By simultaneously engaging with material arrangements at hand and having direct interactions with other spatial and social realities elsewhere by way of their preferred virtual spaces, young people could effectively produce embodied-experienced and acquire spatial knowledge under multiple interrelated spatial logics. In this case, it would no longer be possible to distinguish between the formality-institutionality and non-formality of learning processes. In contrast, in the realm of the home, our findings clearly show how some researched people transform their rooms (as well as other spaces in their homes) into formal-institutional learning arenas as a result of being urged to excel academically. As a result, their autonomous learning agencies lose momentum in terms of triggering non-formal learning process, for the home is experienced less and less as an actual "off-school" space and time. Incidentally, at the time of writing this monograph and with the advent of the COVID-19 pandemic, we witnessed an accentuated intensification of this phenomenon (Million 2021), making it virtually impossible to tell learning arenas and agencies of formal-institutional processes apart from those of

non-formal processes. We strongly believe that the aftermath of the pandemic should be the subject of future research.

Moreover, we have observed that social inequality has continued to impact the processes shaping young people's spatial knowledge. Class, race, gender, and age still matter in the process of spatial knowledge acquisition. Our findings indicate that gender, in particular, influences young people's spatial knowledge. Due to parental restrictions, for example, girls have more limited access to spaces and their range of movement is not as ample as that of boys. Girls often are forced to spend significant amounts of time at home and have fewer opportunities for unsupervised play. Their spatial practices are thus influenced by and are an expression of gender-specific societal attributions. This is also reflected in their perceptions of space: Their neighborhood ideals are more home-oriented and they experience more fear in outdoor spaces. The massive influence of gender on spatial knowledge calls for deeper research to uncover (new, intensified, altered) gender conflicts. We have already identified an interesting connection in the meta-analyzed studies from the last several recent years, which indicate that access to the Internet visibly alters young girls' spatial practices as virtual spaces offer more and new freedoms for their identity formation and expression.

Lastly, we were also able to characterize the prospective spatial knowledge of young people, which refers to their ability to spatially imagine both how their (natural/built) environment could be transformed and where they see themselves and what they would like to be in the future. Moreover, young people's prospective spatial knowledge is buttressed by embodied-experienced and, prominently, mediated spatial knowledge, which infuses their spatial imaginations with an array of spatial references. As a result, images and expectations of space tend to be quite concrete and detailed (e.g., mandatory technical and management infrastructure at the neighborhood level). Furthermore, these prospects reveal young people's insights into and comparisons with other spatial realities (including those located far away geographically and which they have never visited). Ultimately, both insights and comparisons underlie the alternative spatial futures young people imagine for both themselves (professional aspirations coupled with potential preferences on where to live) and their current living conditions (which, interestingly enough, researched young people often cherish and appreciate, but still acknowledge as imperfect and mention specific areas of improvements).

Qualitative meta-analysis: Reflection and call for further research

The main objective of our research was to unravel the production and acquisition of spatial knowledge by young people meta-analytically to determine how they use, perceive, assess, and appropriation spaces. To this end, our qualitative meta-analysis aimed to (re)interpret the way histories, identities, values, symbols, etc. are inscribed in space and how that, in turn, affects the way knowledge about space is produced and acquired. However, given that the spatial knowledge of young people is hardly ever researched explicitly, we reconstructed its evolution by drawing on qualitative studies from a diverse range of disciplines. Thus, the evolution

of young people's spatial knowledge is considered secondarily at best within such analyses as a sort of "contextual background" against which to present the empirical results. In addition, the meta-analyzed studies are specific to their respective times and contexts and are circumscribed by the research idiosyncrasies in their particular fields of study. By using a custom-made combination of qualitative meta-analysis principles in our research project, we set out to trace the evolution of young people's spatial knowledge from the late 1960s and early 1970s onward. In so doing, we show the dormant utility and relevance of the qualitative research that has already been carried out in a case-oriented, more focused, and sharply delimited examination of this key topic in a wider and more assorted sample than the usual standard in qualitative research. We, therefore, attempted to bridge two gaps: both thematic and methodological.

By creating a qualitative meta-analysis involving 60 studies, we have entered into new methodological territory in several respects. While quantitative meta-analysis is an established method, there is no established procedure for conducting qualitative meta-analyses. Moreover, the existing qualitative meta-analyses that we came across have evaluated up to twelve studies. Likewise, qualitative meta-analyses have been used frequently in health, education, social sciences, and practice-oriented disciplines, with the clear objective of overcoming the presumption that evidence can only rely on experimental research within the confines of distinct fields of study. In other words, there has been no attempt to combine different disciplines that have examined a similar phenomenon. By focusing on and, to a certain extent, preserving the experiential singularities from the individual studies used in the meta-analysis, it is possible to comprehend the evolution of spatial knowledge of young people from a wider and more heterogenous perspective.

The qualitative meta-analysis we conducted set out to identify crystallizing moments in the spatial knowledge of young people—be it in how space is used, appropriated, transformed, disputed, etc.—that we derived from existing cases by interpreting, as it were, blind spots. Hence, synthesizing constituted by far the most challenging and delicate phase. Accordingly, when generating *second-order* and even *third-order interpretations*, we had to avoid falling into the quagmire of universalization or syncretism, because synthesis is intended for comprehensive (meta-)narratives and not (meta-)interpretations. Moreover, our qualitative meta-analysis was not meant to give way to new mainstream scientific research. In other words, our aim was to highlight what is already known (albeit partly), instead of seeking or forcibly producing trailblazing breakthroughs in knowledge. Rather, our objective was to capture through a meta-analytical lens a spatial phenomenon: the evolving spatial knowledge of young people.

Furthermore, uncovering of "structural similarities," in line with Katz (2004), proved to be productive for our methodology. Interestingly, as we were looking for structural similarities in the production and acquisition of spatial knowledge throughout different geographic contexts and times of research within our sample, we stumbled upon variations and differences, too. We also relied on the general conceptual framework of the Collaborative Research Centre (CRC) "The Re-Figuration of Spaces," in which this phenomenon is depicted as global and thus attuned

to the principle of structural similarities. At the same time, the CRC's research has shown that the refiguration of spaces may manifest itself in manifold ways, at various times, and in different settings.

An aspect that quickly became challenging was the fact that we slightly underestimated the time and wo/manpower needed to carry out a qualitative meta-analysis in light of the amount of interpretation required for the empirical material. Be that as it may, it was worth the effort, for no other study has ever attempted to draw such a comprehensive picture of the evolution of young people's spatial knowledge over the past 50 years covering such varied geographic contexts and types of settings (from rural to urban). The limitations of a qualitative meta-analysis as a means of research are already outlined in the methods chapter. In addition to exploring the spatial knowledge of young people, we believe we have contributed to showing the great potential of qualitative meta-analysis (although, admittedly, a lot still needs to be done).

Toward the end of the arduous task of expressing our meta-analysis in written form, we began to notice that some of the empirical material we had sampled and the results to which it had led us revealed a distinctive basis for follow-up research to be conducted in the not too distant future. Based on a few meta-analyzed studies as recent as 2019 and considering the effects of the abrupt upheavals caused by the COVID-19 pandemic on the spatial knowledge of young people, we can already sustain that adding to our meta-analysis would be not only relevant but also necessary. For instance, future research could look into how young people's spatial practices have become increasingly digitalized: particularly, those of play and those pertaining to their formal-institutional learning.

Turning knowledge into participatory action: Incorporating young people's spatial knowledge into design and planning practice

Aside from being researchers, we also consider ourselves to be architects and planners, as well as advocates for young people. We therefore see a great potential to make the spatial knowledge of young people a more prominent asset in design and planning practice. We are well aware that this would be far from easy, yet it would still be worth pursuing. To begin with, it is necessary to revisit the seemingly enduring predominance of the "knowledge of the particular" in design and planning practice and in policymaking debates, together with the need to offset the incapacity of abstract generalizations to fit individual cases. A rather superficial look into the existing literature on participatory design and planning processes with young people reveals the ubiquity of idiographic assessments that insist on universalizing best practices. Drawing on some of our findings, we can ensure that the spatial knowledge of young people is indeed a valuable resource in the frame of planning and design processes. To that end, design and planning practitioners would have to deal with the dialectical connection between the production of spatial knowledge (i.e., its abstract objectivation in the form of plans and designs) and its projection onto physical space (i.e., its concrete objectivation in the form of

constructed designs or implemented plans). In so doing, they would have to recognize that there is not one but various types of spatial knowledge colliding and competing with one another within this relation. Unfortunately, the spatial knowledge of young people is relegated to the background more often than not.

Another aspect that ought to be reassessed is how to promote participatory design and planning processes in a more substantive manner—a task that almost inevitably represents a hassle for the experts involved. It demands that designers and planners step down from their position of mastery and allow other rationales to enter the decision-making arena, potentially influencing the course of action. When it comes to involving young people, the challenge is arguably more complex, for this participatory group is still seldom targeted (and is repeatedly underestimated). Charged with the stigma of lacking competence to engage in dialogue with experts, they are time and again cut out of the loop. Even when this short-sighted attitude is overcome, the ways designers and planners allow young people to be part of the design and planning processes very rarely extend beyond sketching ideas and building colorful scale models. A handful of meta-analyzed studies suggest that, while these alternatives are not necessarily amiss in and of themselves, they tend to fall short as articulated forms of young people's spatial knowledge and end up being somewhat sterile. Therefore, the challenge is to supersede these well-established participatory practices and dare to explore alternatives to incorporate young people's spatial knowledge. To do so, design and planning practitioners must learn to understand how young people objectify their spatial knowledge. This includes the ways they talk about and use spaces, their performative and linguistic appropriations of space, the physical adjustments they autonomously implement, their past memories, and their ability to prospectively imagine how their immediate and distant spaces could be. In addition, the effect that mediatization has on the everyday spaces of young people adds an element of complexity for designers and planners in terms of how young people produce and acquire their spatial knowledge. At the same time, the digitalization underlying the current process of deep mediatization constitutes an opportunity to expand the spectrum of participatory activities and mechanisms. After all, to get young people on board, it is necessary to speak and decode their language and not frame explicitly the participatory circumstances as a design or planning process, but rather as something more attuned to their interests.

Furthermore, our meta-analysis shows how the multidimensionality that permeates the spatial knowledge of young people becomes tangible. In turn, this may be the reason to reconsider the way design and planning practice infuse public spaces in particular with tacit and explicit spatial pedagogization. Here, the instrumental role played by designers and planners has to be addressed more broadly and frankly in academic debates. Spatial pedagogization can have various negative consequences for young people: especially, the way it directly and explicitly hinders their self-determined spatial practices. In our view, the effects of both spatial pedagogization and social control must be brought to the fore to encourage responsive rather than prescriptive design and planning practices. Instead of stubbornly conceiving and building spaces aimed at controlling young people and users in general, designers and planners should recognize their profession as open-ended and imperfect—and,

as such, susceptible to progression through experiential components and functionally open spaces of appropriation. Amid a sea of critical and pressing issues, we contend that a reconsideration of child- and youth-dedicated spaces—as epitomes of social control and spatial pedagogization—is of utmost importance. The debate should revolve around questions such as where, if at all, they would actually be required in view of predicaments such as how to deal with an increased involvement of young people in public spaces (which pertains to discussions on the right to the city and universal design). By the same token, the question of how to design child- and youth-dedicated spaces for them to be less restrictive and pedagogizing and instead become modifiable and conducive should be the subject of deliberation. Additionally, the persisting gender differences that markedly shape young people's spatial practices, spatial perceptions and assessments, learning arenas and agencies, and activity spaces highlight the urgent demand for designers and planners to be more sensitive to gender divides and to incorporate them into their professional practice.

As young people are growing up in an increasingly interconnected world, designers and planners are presented with a series of challenges. To start with, young people's spatial knowledge is subject to effects of translocalization (e.g., when they acquire mediated spatial knowledge of distant spatial realities through digital interactions) and polycontexturalization (e.g., the way in which diverse spatial logics intersect in shopping centers). Thus, design, planning, and policymaking actions and initiatives should be responsive to these trends, all the while avoiding definitive and sweeping proposals (such as "a child- and youth-dedicated mall"). Additionally, young people should be recognized by designers and planners as competent and skilled counterparts within participatory processes, whose actions are not mere antics (particularly to go beyond drawing and modeling as the main examples of contribution). A starting point would be paying closer attention to the way young people produce, acquire, and implement their spatial knowledge to navigate their everyday spatial structures, to develop their comparison and assessment skills in both temporal (before vis-à-vis after) and spatial (here in contrast to there) terms, and develop and refine their coping strategies and tactics to deal with social control and spatial pedagogization. Likewise, designers and planners should recognize that their decisions and actions influence the formal-institutional and non-formal learning processes of young people given that design schemes and master plans, for example, constitute learning arenas that largely (pre)determine learning agencies. While this realization arguably comes easier in instances relating to formal-institutional learning (designers and planners are repeatedly commissioned to design schools and campuses), it might be harder to realize that shaping the physical-material arrangements of public spaces (through project proposals, master plans, and even policies) means effectively influencing non-formal learning processes. Finally, the fact that a stable set of criteria has been guiding young people's spatial perceptions and assessments over the last five decades and across diverse geographic contexts is not merely anecdotic, but a quite valuable insight for design and planning practice in that it could inform decisions and direct actions on

much more veritable grounds (even beyond integrating child- and youth-friendly concepts into designs and plans).

Overall, young people possess a rich tapestry of spatial knowledge, which plays a key role in the development processes of their living surroundings—from their very homes to the street, neighborhood, and city in which they live. Sure enough, putting their spatial knowledge into practice is not a direct translation from the realm of their imagination (and desire) into their material reality. Nor is there a "magic" recipe or formula for incorporating young people's spatial knowledge into design and planning processes. As we have argued throughout this book, while there are many possibilities to apply the spatial knowledge of young people, doing so involves embarking on a long (and at times arduous) road.

For us, completing the research on which this book is based represented a journey through the past decades and various regions of the world and into very different geographic contexts and socio-spatial realities that shape the childhood and youth of young people. As we anticipated, the historical reconstruction of the evolution of young people's spatial knowledge did not end up reflecting a linear and smooth process, but rather a complex combination of (both coexisting and asynchronous) sequences full of stark contrasts and subtle nuances, as well as pronounced junctures and pervading continuities. We sincerely hope that reading this book has been just as rewarding as it was for us to write it.

Appendix: Overview of meta-analyzed studies

Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Agha et al.	Children's agency in accessing for spaces of play in an urban high-rise community in Malaysia	2019	Dec. 2013–Feb. 2014	Urban Bukit Cempaka, Malaysia	4- to 12-year-olds
Ahmed and Sohail	Child's play and recreation in Dhaka City, Bangladesh	2008	Nov.–Dec. 2004	Urban Dhaka City, Bangladesh	5- to 18-year-olds
Almeida et al.	Internet, Children and Space: Revisiting Generational Attributes and Boundaries	2014	Not specified	Urban neighborhoods in Lisbon, Oporto and Viseu, Portugal	8- to 17-year-olds
Apel et al.	Kinder in der Stadt [Children in the city; own translation	1985	Completed 1982	Urban Herten, Ruhrgebiet, Germany	3- to app. 11–12-year-olds
Arends and Hordijk	Physical and Virtual Public Spaces for Youth: The Importance of Claiming Spaces in Lima, Peru	2016	2000, 2012, 2014	Peripheral settlement in Lima, Peru	15- to 24-year-olds
Bannerjee and Driskell	India: Tales from Truth Town	2002	1997	Sathyanagar, a self-built settlement, urban Bangalore, India	10- to 14-year-olds
Beazley	Bus Stops and Toilets: Identifying Spaces and Spaces of Identity for Indonesian Street Children	2016	1990s	Urban Yogyakarta, Indonesia	9- to 17-year-olds

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Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Berg and Medrich	Children in Four Neighborhoods: The Physical Environment and its Effect on Play and Play Patterns	1980	April and June 1976	Four urban neighborhoods in Oakland, California, USA	11- to 12-year-olds
Burke et al.	A Critical Geographical Approach to Youth Civic Engagement: Reframing Educational Opportunity Zones and the Use of Public Spaces	2016	Period of two years	Urban Notre Dame, USA	Junior- and Highschool students
Buss	Urban Los Angeles from Young People's Angle of Vision	1995	Not specified	Five urban neighborhoods in Los Angeles, USA	9- to 11-year-olds
Carroll et al.	Kids in the City: Children's Use and Experiences of Urban Neighbourhoods in Auckland, New Zealand	2015	2011–2012	Nine urban or suburban neighborhoods in Auckland, New Zealand	9- to 12-year-olds
Cummins	Rural Children's Perceptions of Life on the Land in Southwestern Ontario	2009	2000	Rural Southwestern Ontario, Canada	7- to 12-year-olds
Deutsches Jugendinstitut (ed.)	Was tun Kinder am Nachmittag? Ergebnisse einer empirischen Studie zur mittleren Kindheit [What do children do in the afternoon? Results of an empirical study on middle childhood; own translation]	1992	Completed 1988	Inner city area Munich, residential villages in the Rhine-Main Metropolitan Area, rural community in Vogelsbergkreis, Hessen, Germany	Parents and 8- to 12-year-olds

Díaz-Rodríguez et al.	Spaces of transition: Young People's Social Practices in Santa Cruz de Tenerife (Canary Islands, Spain)	2015	Initiated Jan. 2014	Urban Santa Cruz de Tenerife, Canary Islands, Spain	15- to 20-year-olds
Fuhrer and Quaiser-Pohl	Wie sich Kinder und Jugendliche ihre Lebensumwelt aneignen: Aktionsräume in der ländlichen Kleinstadt [How children and adolescents appropriate their living environment: Activity spaces in a rural small town; own translation]	1999	Not specified	Rural smalltown, Switzerland	10- to 14-year-olds
Geertman et al.	Youth-Driven Tactics of Public Space Appropriation in Hanoi: The Case of Skateboarding and Parkour	2016	Oct. 2014–Dec. 2015	Urban Hanoi, Vietnam	16- to 34-year-olds
Gough	"Moving around": The Social and Spatial Mobility of Youth in Lusaka	2008	2001–2005	Urban Lusaka, Zambia	14- to 27-year-olds
Grabow and Salkind	The Hidden Structure of Children's Play in an Urban Environment	1976	Not specified	Urban neighborhood in Kansas City, Missouri, USA	9- and 11-year-olds
Gräbel et al.	Unterwegs in deutschen Bildungslandschaften [En route in German educational landscapes; own translation]	2015	2013–2015	Urban Hamburg and rural Bodenfelde, Germany	14- to 15-year-olds

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Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Gülgönen and Corona	Children's Perspectives on their Urban Environments and their Appropriations of Public Spaces in Mexico City	2015	2015	Urban Mexico City, Mexico	7- to 9-year-olds
Hammond	How will the Children come Home? Emplacement and the Creation of the Social Body in an Ethiopian Returnee Settlement	2003	1993–1995, 1996–1997, 2001–2002	Refugees' camp in Sudan and Ada Bai, rural settlement for returnees in Ethiopia	Children of different ages
Hart	Children's Spatial Representations of the Landscape: Lessons and Questions from a Field Study	1981	Not specified	Suburban Ivanale, New England, USA	10- to 14-year-olds
Hatuka and Toch	The Emergence of Portable Private-Personal Territory: Smartphones, Social Conduct and Public Spaces	2016	March–May 2011	Urban Tel Aviv, Israel	Undergraduate University Students about 24-year-olds
Hayward et al.	Childrens Play and Urban Playground Environments: A Comparison of Traditional, Contemporary, and Adventure Playground Types	1974	Not specified	Urban neighborhood (no further geographical reference provided)	6- to 13-year-olds
Hernandez and Sancho	Children's Knowledge of their Environment – Implications for Urban Education and Urban Planners	1989	Not specified	Three urban neighborhoods in Barcelona, Spain	9- to 10-year-olds

Hitzler	Wo spielen Kinder? Eine empirische Studie zu Aufenthalts- und Spielräumen von Grundschulkindern in einer Kleinstadt [Where do children play? An empirical study of recreation and play spaces of elementary school children in a small town; own translation]	1995	1990s	Smalltown, Germany	8- to 11-year-olds
Holloway and Valentine	Placing Cyberspace: Processes of Americanization in British Children's Use of the Internet	2001	Initiated Oct. 1996	Not specified, United Kingdom	11- to 16-year-olds
Jaramillo	Esa Cancha Es Nuestra: Una Etnografía Con Niñ@s Sobre Espacio Público [That court is ours: An ethnography of public space with girls; own translation]	2011	Oct.–Dec. 2010	Urban neighborhood in Neuquén, Patagonia, Argentina	8- to 14-year-olds
Katz	Growing up global: economic restructuring and children's everyday lives	2004	1980–1981, 1983, 1984 and 1995	Rural village Howa, Sudan, urban neighborhood of Harlem in New York City, USA	Children and their development over almost 15 years

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Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Khan	From the peaks and back: mapping the emotions of trans-Himalayan children education migration journeys in Kathmandu, Nepal	2018	April–Aug. 2014 and 2015	Urban Kathmandu and rural villages, Nepal	15- to 17-year-olds
Lynch	Growing up in Cities: Studies of the Spatial Environment of Adolescence in Cracow, Melbourne, Mexico City, Salta, Toluca, and Warszawa	1977	1972–1975	Urban neighborhoods in Salta, Argentina Melbourne, Australia Toluca, Mexico Warsaw and Cracow, Poland and two rural villages (in the Cracow region)	11- to 15-year-olds
Malone	"The Future Lies in Our Hands": Children as Researchers and Environmental Change Agents in Designing a Child-Friendly Neighbourhood	2013	2011	Smalltown Dapto, Australia	5- to 6-year-olds and 9- to 10-year-olds
Malone and Hasluck	Australia: Australian Youth	2002	1996–1998	Suburban neighborhood of Braybrook, Melbourne, Australia	10- to 15-year-olds
Matthews et al.	The Unacceptable Flaneur: The Shopping Mall as a Teenage Hangout	2000	Initiated Oct. 1996	Five shopping malls in the East Midlands, UK	9- to 16-year-olds, Interviews with 12- to 16 -year-olds

McNamee	The Home. Youth, Gender and Video Games: Power and Control in the Home	1998	Not specified	Not specified, supposingly United Kingdom	5- to 16-year-olds
Million et al.	Educational Institutions and Learning Environments in Baukultur: Moments and Processes in Built Environment Education for Children and Young People	2019	2017–2018	Small town Dießen, urban Berlin and Frankfurt, Germany and Innsbruck, Austria	8- to 18-year-olds
Milstein	Cuerpos que se desplazan y lugares que se hacen: Experiencias etnográficas con niños en dos barrios populares de la Argentina [Bodies that move and places that are made: Ethnographic experiences with children in two popular neighborhoods in Argentina; own translation]	2013	2004–2005 and 2010	Urban neighborhoods in Argentina: Villa La Florida, Buenos Aires and Toma Norte, Neuquén, La Patagonia	10- to 13-year-olds
Muchow and Muchow	Der Lebensraum des Großstadtkindes [The habitat of the big city child; own translation]	1935	1920s and 1930s	Urban Hamburg, Germany	Up to 14-year-olds

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Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Ortiz et al.	Procesos de apropiación adolescente del espacio público: Otra cara de la renovación urbanística de Barcelona [How teens appropriate public space: Another view of urban renewal in Barcelona; own translation]	2014	2010–2011	Urban neighborhood of Besós-Maresme, Barcelona, Spain	14- to 16-year-olds
Payne and Jones	Childrens Urban Landscapes in Huntington Hills, Calgary	1977	May–Aug. 1975	Suburban Huntington Hills, Calgary, Canada	5- to 16-year-olds
Pfeil	Das Großstadtkind [The big city child; own translation]	1965	1955	German urban space (no further geographical reference provided)	not specified
Punch	Children's Strategies for Creating Playspaces: Negotiating Independence in Rural Bolivia	2000	Not specified	Rural community in Churquiales, Bolivia	8- to 14-year-olds
Saif	Identity Formation In Shopping Malls: A Case Study of Indian Teenagers	2019	Nov. 2018–Jan. 2019	Urban Kochi, India	14- to 17-year-olds
Salvadori	Between Fences: Living and Playing in a California City	2002	1997	Urban neighborhoods and housing projects in Oakland, California	10- to 14-year-olds
Sander	Shanghai Suburbia. Expatriate Teenagers' age-specific Experiences of Gated Community Living	2016	2007, 2010–2012	Gated communities in Shanghai, China, but also the urban space of Shanghai	15- to 18-year-olds
Schak	Determinants of Children's Play Patterns in a Chinese City: The Interplay of Space and Values	1972	1969–1970	Urban Taipei, Taiwan	Middle and working class children and mothers

Seggern et al.	Stadtsurfer, Quartierfans & Co. [City Surfers, Neighborhood Fans & Co.; own translation]	2009	Not specified	Urban Hanover, Germany	13- to 18-year-olds
Sepúlveda	Recuperando la espacialidad de los sujetos: Metodologías cualitativas para el análisis espacial, un modelo de topos, paisajes y tecnologías [Recovering the spatiality of subjects: Qualitative methodologies for spatial analysis, a model of topos, landscapes and technologies; own translation]	2018	2018	Urban Santiago de Chile, Chile	Highschool students
Serrano	Habitar y transitar ciudad: Percepciones y experiencias de los niños y niñas sobre la ciudad de La Paz [Inhabiting and transiting the city: Children's perceptions and experiences of the city of La Paz; own translation]	2015	2013	Urban La Paz, Bolivia	8- to 12-year-olds
Swart-Kruger	Children in a South African Squatter Camp Gain and Lose a Voice	2002	1997–1999	Canaansland, a Squatter Camp, urban Johannesburg, South Africa	10- to 14-year-olds

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Author(s)	*Title of the study*	*Year of publication*	*Study period*	*Location/geographical point of reference of the study*	*Sample group*
Talen and Coffindaffer	The Utopianism of Children: An Empirical Study of Children's Neighborhood Design Preferences	1999	Not specified	Suburban neighborhood, Monongalia County, West Virginia, USA	Children in their last year of Kindergarten (from five years) as well as children in first and second grade of school
Tischer and Engelke	Zur Situation von Kindern in alten und neuen Arbeiterquartieren. Eine Untersuchung am Beispiel Hannover-Linden und Garbsen-„Auf der Horst" [On the Situation of children in old and new working-class neighborhoods. An investigation using the examples of Hannover-Linden and Garbsen-"Auf der Horst"; own translation]	1978	Completed April 1978	Urban neighborhood of Linden-Nord in Hanover and Garbsen close to Hanover, Germany	6- to 12-year-olds
Tse and Waters	Transnational Youth Transitions: Becoming Adults between Vancouver and Hong Kong	2013	2002–2010	Urban neighborhoods in Vancouver, Canada and Hong Kong, China	18- to 30-year-olds

van Blerk	Diversity and Difference in the Everyday Lives of Ugandan Street Children: The Significance of Age and Gender for Understanding the Use of Space	2006	2006	Urban Kampala, Uganda	8- to 17-year-olds
van Blerk	New Street Geographies: The Impact of Urban Governance on the Mobilities of Cape Town's Street Youth	2013	Initiated Aug. 2006	Urban Cape Town, South Africa	10- to 28-year-olds
Van Staden	Urban Early Adolescents, Crowding and the Neighbourhood: A Preliminary Investigation	1984	Not specified	Urban neighborhoods in Brooklyn & Manhattan, New York City, USA	11- to 13-year-olds
van Vliet	Neighbourhood Evaluations by City and Suburban Children	1981	Completed 1980	Urban and suburban neighborhoods in Toronto, Canada	14- to 16-year-olds
Zeiher and Zeiher	Orte und Zeiten der Kinder. Soziales Leben im Alltag von Großstadtkindern [Places and times of children. Social life in the everyday life of big city children; own translation]	1994	1983–1985	Two West-Berlin urban neighborhoods, Germany	10-year-olds
Ziemer	Minority youth, everyday racism and public space in contemporary Russia	2011	2011	Urban Krasnodar, Russia	Armenian Youth (age not specified)
Zyclicz	Adapting during a time of great change	2002	Initiated 1995	Urban neighborhood of Powiśle, Warsaw, Poland	10- to 15-year-olds

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