

Between Commitment and Constraint: Children's Well-Being in New Suburban Open Space Planning Practice

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Abstract

This article examines how planners conceptualize and design open spaces for children in large-scale suburban housing developments on the fringes of German metropolitan areas. Drawing on children's subjective well-being research—specifically three interrelated domains identified by Fattore et al. (2017): agency and autonomy, safety and security, and self and identity—we use these domains as an analytical lens to explore where professional planning perspectives align with, diverge from, or structurally limit children's well-being priorities, and how planning structures limit their translation into practice. Through interviews with 13 planners, we investigate how they conceptualize open spaces for children, how regulations shape their design decisions, and how children's needs are incorporated into their work. Our findings show that planners do not ignore children; many describe them as active spatial agents who need freedom, manageable risk, retreat, and informal appropriation. However, these commitments are translated unevenly into planning terms: Safety/security are most readily operationalized, while agency/autonomy and self/identity prove harder to embed within standard procedures and project timelines. This tension becomes visible across four themes: open space design, participation formats, mobility infrastructure, and schools as contested semi-public spaces. The analysis reveals how child-oriented professional reasoning is narrowed, displaced, or made actionable through the structural conditions of planning practice.

Keywords

children's participation; children's well-being; open spaces; planning practice; suburbia

1. Introduction

Since the 2010s, large-scale suburban housing developments on the edges of German metropolitan regions have re-emerged, driven by the difficulty of mobilizing inner-city densification potentials. They are often

debated in terms of housing pressure, infrastructure provision, and land take (Bundesinstitut für Bau-, Stadt- und Raumforschung, 2021). Yet these projects are not simply a continuation of post-war suburban expansion. They are planned under the conditions of reurbanization, sustainability agendas, and renewed expectations towards compactness, social diversity, mixed uses, traffic reduction, educational and care infrastructure, and multifunctional green spaces (Altrock et al., 2024; Bertram et al., 2026). At the same time, they retain a suburban orientation: providing family-friendly environments with access to landscape, safe mobility, and nearby open spaces. These developments also shape the everyday environments in which children grow up. For children aged 7–13, neighborhood open spaces and routes connecting them form key settings for play, encounter, and spatial experience. In this age range, children's independent use of space typically expands, making neighborhood open spaces and routes particularly consequential for their everyday autonomy and well-being, while adult oversight becomes more negotiated and situational (Marzi & Reimers, 2018; Qiu & Zhu, 2021). In new suburban housing areas, open spaces are expected to serve multiple roles: providing recreation, supporting microclimate regulation and stormwater management, connecting housing areas with surrounding landscapes, and contributing to a family-friendly image. Their realized form, however, is shaped by standards-based requirements, implementation deficits, and resource-bound maintenance regimes that tend to favor clear allocation and controllability over everyday appropriability (Apel, 2010; Bundesinstitut für Bau-, Stadt- und Raumforschung, 2021).

Children's well-being has also become a prominent research and policy framework in the post-pandemic period (Cortés-Morales et al., 2022). Child-friendly city agendas, alongside this growing well-being discourse, have brought children's everyday environments into urban planning debates, highlighting the built environment as part of children's everyday life and well-being—including in suburban and peripheral development contexts (Million et al., 2024). At the same time, review work suggests that “child-friendly” approaches often remain weakly anchored in strategic planning and can narrow attention to selected themes, such as designated play areas, with limited influence on broader urban development decisions, including new large-scale housing projects (Cordero-Vinueza et al., 2023). Taken together, this points to a translation challenge in planning practice: Even when children are acknowledged as important, their needs are mediated through standards, project routines, participation formats, and inter-professional negotiation (Bundesinstitut für Bau-, Stadt- und Raumforschung, 2021; Cordero-Vinueza et al., 2023). This is particularly relevant in new suburban housing developments, where children are central to the family-friendly promise of the district but often absent as actual users during early planning phases. Long planning and implementation horizons intersect with children's comparatively short and dynamic life phases (Ben-Arieh, 2006). Children who move into newly built districts at age seven may be adolescents or young adults by the time open spaces, schools, and social infrastructure reach their intended quality. This temporal mismatch raises fundamental questions about how planning can better anticipate the needs of first residents, for whom the neighborhood will never be fully finished.

This article addresses this gap by examining how planners conceptualize children's well-being when planning open spaces in suburban housing developments at the metropolitan fringe and under the specific conditions of new suburbanicity: family-oriented development expectations, long project timelines, infrastructural prefiguration, traffic-reduction ambitions, and multifunctional open-space systems. We focus on planners, broadly understood as professionals involved in spatial planning and design (e.g., urban designers, landscape architects). We use a child-standpoint conceptualization of well-being as an analytical lens, drawing on three domains identified in research with children by Fattore et al. (2017): agency and autonomy, safety and

security, and self and identity. These domains enable a systematic interpretation of whether, how, and under which constraints planners' professional rationales resonate with children's well-being priorities. Our aim is not to measure children's well-being outcomes in the studied developments. Rather, we use the three children-derived conceptual categories to identify alignments, divergences, and blind spots in professional planning perspectives. The guiding research question is: How do planners conceptualize children's well-being when planning open spaces in new suburban housing developments, and how do these conceptualizations align with or diverge from children-derived domains of well-being? We further ask how these perspectives become embedded in design choices and how planners negotiate practical constraints related to master planning, infrastructure requirements, and participation formats.

2. Conceptual Framework and Theoretical Background

2.1. *Children's Well-Being as an Analytical Framework*

Children's well-being has emerged as an international, interdisciplinary field assessing children's quality of life across everyday settings such as family, education, and community (Fattore et al., 2017, 2021; Fegter & Fattore, 2024). The field has shifted from objective indicators towards qualitative approaches that understand well-being as a dynamic social practice (Fegter & Fattore, 2024; Keller, 2014). Yet quantitative, adult-centric perspectives remain dominant, raising questions about whether research truly captures children's own views (Ben-Arieh et al., 2014).

To operationalize children's well-being as an analytical lens, we draw on Fattore et al. (2017), who conducted a large-scale qualitative study with children aged 8 to 15 across New South Wales, Australia, treating them as co-constructors of knowledge through open interviews and task-oriented methods such as drawing and photography. Key well-being domains emerged inductively from the narratives of 127 children. The framework has since been extended through the multinational Children's Understanding of Well-Being project in more than 30 countries, affirming its cross-cultural applicability (Fattore et al., 2019).

We use Fattore et al.'s (2017) domains—agency/autonomy, safety/security, and self/identity—as analytical lenses through which to read planners' accounts, not to represent children's voices. These domains are not children's own words, but analytical categories derived by researchers through qualitative analysis of what children across diverse everyday contexts made relevant in their accounts of well-being. Our use of this framework is not premised on direct engagement with children, but on its status as an empirically derived, internationally recognized benchmark. This framing positions planner reasoning, rather than children's experience itself, as the empirical focus of this article. By adopting this framework, we aim to move beyond a purely descriptive use of well-being domains. Following Fattore et al. (2019), well-being domains serve as a means to examine the assumptions built into planning practice—not to claim that planners' accounts reflect children's well-being directly, but to examine how planners conceptualize children's well-being, whether their reasoning recognizes children as experts of their own lives, or whether it defaults to adult-centric concerns such as protection and behavioral regulation.

Following, we will explore the domains (Fattore et al., 2017). Within the domain of agency and autonomy, children's agency is understood as their capacity to make choices and exercise self-determination. Rather than being an individual attribute, agency emerges through negotiations with others, particularly adults, in contexts that structure participation, and is thus relational and contingent on available opportunities.

The second domain of safety and security concerns children's everyday sensations of comfort, inclusion, restriction, or anxiety. While spaces such as the home are often associated with security, this is not universally the case, and both private and public environments can shape children's experience in enabling or constraining ways, highlighting that safety is relational and socially produced.

Within the third domain of self and identity, the significance of "being-me" is fundamental to children's well-being. While childhood is often framed as "becoming" rather than "being" (Holloway, 2014), children experience identity as both evolving and present, constructed within social interaction. Privacy and solitude play a key role, as quiet or private spaces enable reflection and support children's sense of self.

Taken together, these domains provide a sensitizing analytical framework for understanding children's well-being as relational, situated, and multidimensional—emerging through everyday social relations and contextual conditions rather than individual attributes.

2.2. Children, Participation, and Planning Practice

Building on this child-centered understanding, Corsaro (1997) conceptualizes children not as passive recipients, but as active social actors. Through "interpretive reproduction," Corsaro argues that children collectively appropriate and reshape peer cultures and spaces rather than being passively shaped by adult expectations. A key milestone for children's integration into planning is the work of Hart (1979, 2013), who, building on Sherry Arnstein, developed the "ladder of children's participation" (Hart, 2013, p. 41), ranging from manipulation and tokenism to child-initiated, shared decisions with adults.

Despite growing recognition of children as active social actors, planning practice often relegates them to passive or marginal roles. In Czechia, children are mainly included symbolically, reflecting tokenistic participation (Kaplan & Janečko, 2026, p. 10), while elsewhere policies tend to be supply-driven through infrastructure rather than environment-oriented (Cao et al., 2025, p. 15). More broadly, planning processes themselves often determine at which stages and to what extent children's perspectives are incorporated at all (Castillo Ulloa et al., 2023; Katsavounidou & Sousa, 2024). Planning disciplines have increasingly attempted to incorporate children's needs, as exemplified by UNICEF's Child-Friendly Cities initiative in 1996, which aims to improve urban environments for children's well-being (Malone, 2006; Million et al., 2024). Nevertheless, the Child-Friendly Cities concept has been criticized for reproducing a segregated, adult-led perspective (Kaplan, 2024; Pitsikali et al., 2020). By allocating children to designated spaces such as playgrounds—described as "fenced islands in public spaces" (Pitsikali et al., 2020, p. 151) or "ghettos" (Kaplan, 2024, p. 2)—planning practices risk marginalizing children's participation in broader urban life. In response, multigenerational approaches plead for more inclusive and shared (sub)urban spaces that refuse to isolate children in specific zones (Kaplan, 2024).

How planners position themselves professionally shapes whether and how these tensions are navigated. Forester (1999) argues that planners are not neutral technical experts but communicative actors who actively shape whose knowledge counts and whose perspectives are incorporated. Fox-Rogers and Murphy (2016) show that planners see themselves as either mediator or administrator and argue that a more critical reflection on power structures is needed. In the German context, Levin-Keitel et al. (2019, p. 122) find that planners operate across a broad range of fields simultaneously, reinforcing a generalist self-image that leaves

little room for specialist engagement with specific target groups such as children. In German practice, instruments such as *Spielleitplanung* and structured youth participation frameworks provide tools for integrating children's spatial needs into municipal planning. However, their application remains uneven and dependent on local political will (Edelhoff, 2024). At the same time, planning professionals hold inconsistent understandings of what children's participation requires, and specific competencies to meaningfully integrate children's perspectives remain largely absent (Cele & van der Burgt, 2015).

Beyond designated play areas, semi-public threshold spaces play a more important role in children's lived experience of the city. These semi-public "in between" zones facilitate children's transition, social interactions, and play (e.g., Bazaïou, 2024; Weir, 2023). They have fluid boundaries and are categorized as "third spaces"—informal settings distinct from home or school—emphasizing social cohesion and children's agency (Bazaïou, 2024, p. 1; Weir, 2023, p. 171). Harber (2021) argues for opening schools and school grounds to the local community, advocating for smaller neighborhood schools more connected to their surroundings. Bazaïou (2024) emphasizes the concept of "architecture of the threshold," which turns schools and their grounds into open meeting places, where the school actively becomes socially relevant to the surrounding city.

Threshold spaces are closely linked to children's wider mobility patterns. "Children's independent mobility," established by Hillman et al. (1990), captures how children travel and play in their neighborhoods without parental supervision. Recent studies indicate a continued and dramatic decline (Marzi & Reimers, 2018; Michail et al., 2025; Qiu & Zhu, 2021) with independent mobility increasingly confined to short distances and specific destinations, most commonly friends' and relatives' homes, rather than open-ended roaming (Qiu & Zhu, 2021, p. 12). Michail et al. (2025) argue in a study that addresses suburban sprawl rather than newer, more compact planned districts, that small-scale, accessible green spaces can provide informal social settings that foster autonomy and community interaction—precisely the kinds of spaces that car-centric planning and long distances to destinations tend to foreclose. Newer suburban developments move away from car-centered planning toward rail-based transit, cycling infrastructure, and mixed-use public space centered around mobility hubs linking individual and collective modes of transport (Bertram et al., 2026). Traffic calming measures such as car-free residential streets reduce collisions and encourage active, independent mobility, particularly supporting children's safety, autonomy, and comfort in residential environments (Bertram et al., 2026; DaCoTA, 2012).

Yet physical space is only part of the picture: Children's online and offline lives are increasingly intertwined, shaping how they experience and navigate space, a dimension that planning approaches—primarily oriented toward physical environments—have largely overlooked (Castillo Ulloa et al., 2023; Livingstone & Third, 2017; Yin et al., 2024).

These structural constraints are compounded by adult risk perceptions that further limit children's spatial autonomy. Drawing on Ulrich Beck's concept of the "risk society" (Beck, 2022), in which managing risk becomes a central organizing principle of modern life, children's spatial autonomy can be understood as increasingly constrained by adult risk assessments rather than children's own needs, interests, and capacities. This may be exemplified in the context of outdoor play, as Visser and van Aalst (2022) show that parents' safety concerns significantly limit children's independent access to neighborhood spaces. They argue that children's outdoor play emerges from the interplay of child, parent, and neighborhood characteristics.

Although children's emancipation and equal participation in urban life are increasingly recognized as planning goals, risk-driven adult gatekeeping often curtails their spatial agency.

3. Research Design and Empirical Context

This article focuses on how children's well-being is conceptualized and interpreted within planning discourse and interrogates the assumptions that underpin these interpretations. Our empirical basis consists of semi-structured interviews with 13 planners involved in seven suburban housing developments in Germany built since 1990. The interviews focused specifically on residential open spaces that were newly designed and central to the everyday neighborhood use of children aged 7 to 13.

The case studies were selected not only as housing developments located at the metropolitan fringe, but as examples of new suburbanity: large-scale urban expansion projects in which suburban family-oriented expectations are combined with contemporary planning objectives such as compactness, mixed uses, sustainable mobility, integrated educational infrastructure, and multifunctional open space. They span early projects initiated in the 1990s as well as developments currently in planning. This temporal spread allows for an analysis of suburban housing provision under varying historical and governance conditions. The selected suburban areas cover a broad spectrum of contexts, including population size, metropolitan–regional positioning, location within Germany, as well as development strategies and stages of implementation. This heterogeneity strengthens the comparative potential of the sample. Due to data security considerations, the case studies are anonymized, as only a few planning offices are involved in large-scale suburban developments. However, general information is provided to give an overview of their characteristics (see Table 1).

3.1. Research Design

The semi-structured interviews, conducted between 2024 and 2025, examined how the interviewed planners conceptualize open space, with a specific focus on the spatial needs for children aged 7 to 13, and how these considerations are translated into design outcomes and everyday planning practice. During the interviews, planners reflected on a specific suburban project, explaining their design principles through sketching on plans. Through qualitative analysis, we assess the extent to which the domains regarding children's well-being (Fattore et al., 2017) are reflected within open space planning.

3.2. Sampling

For the interviews, we talked with 13 planners (nine men and four women, between 37 and 79 years old), who were recruited through purposive expert sampling—targeting only planning offices actively involved in the spatial design and development planning of the selected suburban areas—and are therefore indicative rather than representative.

The 13 planners form a relatively uniform group, mostly middle-aged men from advantaged backgrounds, reflecting the demographics of decision-making authority in planning rather than sampling limitations. This aligns with professional demographics: 61% of members of the German Chamber of Architects are male (Bundesarchitektenkammer e.V., 2024). The sample was constrained by the focus on specific developments

Table 1. Case studies.

Case ID	Metropolitan context	Development period	Scale (approx.)	Child-related planning beyond formal requirements	Child participation status	Interviews per case study
A	peripheral new housing district on former irrigation fields	completed (in 1997)	9,000 residents; 5,200 living units; 100 ha	public green spaces with integrated play areas; sports facilities; green spaces (informal play)	only indirectly represented through standards/municipal advocacy	2
B	extension at the edge of existing suburban sprawl on a former sewage field	masterplanning (ongoing)	20,000 residents; 8,600 living units; 159 ha	four design proposals with different ideas, e.g., nature experience spaces, safe car-free routes	outreach-based participation of children through municipal actor (online)	4
C	extension at the edge of the existing suburban settlement	under construction (since 2016)	25,000 residents; 11,000 living units; 140 ha	integration of a new semi-public educational campus; skatepark; public green spaces with play areas; sport fields; pump track	intensive citizen participation with future scenario workshops	3
D	urban fringe of large metropolitan area	masterplanning (ongoing)	23,000 residents; 8,000 living units; 550 ha	agricultural spaces serving educational purposes; school grounds open to landscape; child-friendly mobility network	so far, only indirectly represented through standards/municipal advocacy	2
E	urban fringe of large metropolitan area	completed (in 2017)	15,000 residents; 6,000 living units; 266 ha	large parks and recreational areas connected by car-free routes	only indirectly represented through standards/municipal advocacy	1
F	peripheral new housing district	under construction (since 2024)	15,000 residents; 7,000 living units; 118 ha	activity-focused parks connected by car-free routes	school-based youth participation (no children)	1
G	peripheral new housing district	completed (in 1999)	23,000 residents; 5,600 living units; 420 ha	leisure and play spaces for children; implementation of a car-free street throughout the area	only indirectly represented through standards/municipal advocacy	1

Note: One planner contributed to two case studies, hence 14 interview references.

in four metropolitan areas over three decades. Analytical saturation was reached, with later interviews refining rather than extending the thematic framework. To ensure anonymity in this specialized field, participants are identified only by occupation, age, and gender.

Furthermore, the study is limited to the perspectives of planning offices. Municipal administrators who frequently engage with questions of stationary traffic, liability, and maintenance would likely offer a different account of how child-related concerns are negotiated in practice. Future research should therefore include administrative actors alongside planning professionals.

3.3. Analysis Procedure

Interview transcripts were coded digitally via MAXQDA using an initially inductive approach with multiple iterative cycles. We developed a coding framework collaboratively through continuous negotiation. To ensure a consistent coding application, each code was described in detail using exemplary textual and visual anchors, and data sessions allowed for discussion and refinement of the codes and framework. As outlined above, we used Fattore et al.'s (2017) domains of children's well-being as an analytical framework to examine how our empirical findings relate to established conceptualizations. Relevant remarks and quotes concerning children's well-being in master planning were then reorganized and categorized in an internal expert workshop to address the study's research question.

3.4. Empirical Context

All selected suburban developments follow broadly similar planning processes combining formal and informal steps. Large-scale residential suburban developments for up to 10,000 residents typically begin with pre-formal and informal conceptual phases—such as feasibility studies—before entering formal planning procedures (Altrock et al., 2024). All recent developments investigated in this study emerged through design competitions that generated master plans, following legally required decisions (e.g., local council votes on development plans). In the German planning culture, children's participation is formally anchored through legal frameworks and standards—e.g., *United Nations Convention on the Right of the Child*, *German Federal Building Code* (BauGB), *Social Code* (SGB), *DIN 18034-1* (Norm for Playgrounds and outdoor play areas)—and is primarily administered at the municipal level (Edelhoff, 2024, pp. 13–17). Across the seven housing areas examined, only two integrated children's participation (Table 1). Within the procedural constraints and predefined forms of participation of large-scale housing developments, meaningful inclusion remains limited. Children's perspectives are mostly curated in planning processes, advocated for by adults rather than directly expressed by children themselves. What this article reveals is how planners navigate this gap in practice: the informal strategies they develop, and how they argue and justify design decisions when confronted with the question of children's perspectives.

4. Findings and Discussion

Based on interviews, data sessions, and literature engagement, we identified four key themes relating to planners' conceptual and design approaches to suburban open space and children's well-being. Emerging inductively from the interview material and refined in an internal expert workshop, they are not direct translations of Fattore et al.'s (2017) three domains, but analytically distinct findings read against them.

The themes mark the points at which new suburbanity becomes relevant for children's well-being: Open spaces are expected to combine recreation, ecological functions, and landscape identity; participation often takes place before future users are present; mobility concepts promise autonomy while remaining embedded in car-oriented metropolitan regions; and schools operate as key social infrastructures in emerging neighborhoods.

Arranged from professional imaginaries of children's open-space needs to the procedural and spatial fields in which these are translated—participation, mobility, and school grounds—the themes show what planning can address, what remains structurally difficult, and what is left to future everyday practice. Across these fields, planners spoke of children not only as vulnerable users to be protected, but also as active spatial agents who need room for movement, noise, manageable risk, retreat, and appropriation.

4.1. Planners' Perspective

4.1.1. Beyond Playgrounds: Envisioning Child-Friendly Open Spaces

During the interviews, we asked planners what activities they envision children doing in open spaces, and how they consider children in their planning practice. Their responses portrayed children as active, loud, and imaginative, associating them with open spaces such as streets, forests, and wild meadows. For them, children's needs center on the ability to experience spaces without strict public–private boundaries and to explore independently, away from parental supervision. One landscape architect (male, 57) explained: Child-friendly spaces should enable children “to develop a strong sense of self and also overcome their own limitations, alone or in a group, to have this experience, even independently of their parents.” Notably, children appeared in planners' accounts not only as a vulnerable group, but as spatial actors whose well-being depends on autonomy, friction, and informal use. This view led some planners to question conventional design approaches centered on play equipment: Children do not stick to age-appropriate apparatus, and playgrounds alone cannot accommodate the full range of autonomous play.

In the context of new suburban developments, this understanding was closely tied to the spatial resources and imaginaries of the metropolitan fringe. Planners located children's autonomy in peripheral areas of settlements, along forest edges, and within green corridors and semi-natural areas—spaces where wild, free, and unobserved play and appropriation become possible, and which function as a connector linking different parts of the neighborhood. New suburbanity thus appears not only as a development context but as a spatial imagination associating children's freedom with landscape proximity, openness, and family-friendly life at the urban edge. Accordingly, planners describe open spaces as flexible settings for encounter, discovery, retreat, and informal appropriation, embracing complexity and mixed use. As one landscape architect (male, 55) put it: “It's always about overlap; it's not about who plays where, who sits where, but rather the attempt to enable and encourage overlap. Including conflicts.”

These accounts align with literature on threshold and shared spaces that emphasizes children's agency within fluid and multifunctional environments rather than within strictly designated play areas (Bazaiou, 2024; Weir, 2023).

Nature experience spaces (*Naturerfahrungsräume*) exemplify this approach. Recognized in German nature conservation law, they are minimally designed, semi-natural open spaces, typically without play equipment,

intended for children aged 6 to 12 to play independently, fostering informal learning (Molitor, 2024). Planners often sought to integrate such spaces into their design, allowing to interact playfully with materials and structures while engaging in multigenerational learning about the landscape (Kaplan, 2024).

4.1.2. Fostering Children's Autonomy in Open Spaces

Planners recognize freedom of action as central to children's well-being: Children need spaces to make noise, experience manageable risk, play without adult surveillance, experiment, explore, and claim spaces as their own. Most described such freedom as essential for independence and self-confidence. Open spaces should also support privacy by providing areas for unobserved activity and solitude. These qualities—autonomy, competence in navigating risk, and opportunities for both social interaction and solitude—align with key domains as identified by Fattore et al. (2017).

While safety remains important in other contexts (see Section 4.3), planners framed children's use of open space less through protection than through experiential learning and discovery, including the acceptance of manageable risk. As one landscape planner (male, 79) explained:

Children also have to learn to deal with danger, even if they fall in [the water] sometimes. I think that's important too. But you can't plan for it, not with each individual child [laughs]. Some parents are very strict about it, and others say, "Well, we'll see..."

This perspective acknowledges both the developmental value of manageable risk and the variability in parental attitudes toward children's spatial freedom. At the same time, planners' accounts revealed tensions between children's autonomy and adult risk governance, echoing broader debates on parental gatekeeping and the restriction of children's independent mobility within contemporary "risk society" conditions (Beck, 2022; Visser & van Aalst, 2022).

Child-dedicated spaces are often mandatory planning requirements, yet they are not always environments where autonomy and agency can flourish. Under standardized requirements, safety regulations, and age-specific equipment logics, planners instead emphasized the importance of designing for ambiguity: spaces flexible enough to accommodate changing uses, moods, and social configurations. Planners' emphasis on green spaces may overlook other autonomous behaviors, such as seeking out commercial spaces, using digital technologies, or frequenting informal, unsanctioned spaces absent from planning documents but crucial for children's independent social development. This selective focus reflects the generalist self-image of planners described by Levin-Keitel et al. (2019), in which children rarely become a sustained focus of professional attention, and echoes Forester's (1999) reminder that planners actively shape, often implicitly, whose needs count in spatial decisions.

4.2. Children's Participation

4.2.1. Values and Barriers to Children's Participation in Suburban Housing Areas

Given the central role of participation in shaping planning processes (Altrock et al., 2024), we asked in the interviews how children were involved, particularly given that dedicated participation formats for children

were largely absent. Many interviewees understood open spaces as interactive settings not specified for a singular user group. As one landscape architect (male, 60) stated: “I actually build for everyone, not for specific people.” This universalist understanding reflects the generalist self-image of planners described by Levin-Keitel et al. (2019) in which planning is framed as serving broad publics rather than specific target groups such as children. However, this approach coexisted with statements emphasizing children as particularly relevant. Planners stated that in “open spaces, children are of course also very important...and usually use them more than others” (landscape architect, male, 79).

All interviewees acknowledged citizen participation as important in principle. Regarding children specifically, planners acknowledged their value but emphasized practical barriers, especially given the early stage of newly built neighborhoods at the urban fringe. As one landscape architect (male, 55) explained: “That’s always the problem with these new neighborhoods. You can’t really carry out participatory processes because there [aren’t yet] any participants.” This points to a specific temporal dilemma: Children are central to the imagined future community, yet those who will later inhabit the neighborhood are often absent when key spatial decisions are made. Even where children are present as early residents, the neighborhood’s full spatial and social offer may only materialize once they have outgrown the life phase it was designed for.

In the absence of direct participation, planners relied on surrogate mechanisms—standards, municipal advocacy, professional judgement, and personal experience—which kept children on the agenda but filtered their perspectives through adult-defined categories. An urban planner (male, 57) acknowledged that team members “with different experiences, with and without children” bring broader perspectives, though “which aspects of this child and youth participation actually make it into the tender and planning process is another question.”

Children’s participation was most visible for child-designated spaces, but it varied considerably across projects and planning periods. An urban planner (female, 64) recalled a project from the 1990s where “playgrounds [were planned] without any involvement from children.” By contrast, in a more recent project, children were actively consulted during the preliminary design phase:

During this...phase we...prepared different play elements. We then brought them along to a participation process on site, and the good thing is, of course, that...[in the area] many children already lived....That means there are...already quite a few users that we could really consult on site. (architect, male, 51)

Some planners articulated a preference for intuition over participatory approaches. A landscape architect (male, 57) explained: “Children were not explicitly [the focus]. Intuitively, we always considered these things as well, including special places and opportunities. And sometimes it’s also helpful not to just negotiate everything.” Several interviewees also mentioned a temporal mismatch between planning cycles and childhood as a practical challenge. As planning processes can extend over years or decades, children involved in early participation phases may have outgrown the relevant life stage by the time of implementation.

4.2.2. Children's Role in Participatory Planning Approaches

On an individual level, planners mostly have children's well-being in mind. However, they are significantly constrained by the planning processes and institutional frameworks, which shape how and to what extent children can be involved.

This becomes particularly evident in the division of labor within planning processes. The interviewed planners, or more precisely the commissioned planning offices, were hired by municipalities to develop master plans. Usually, participatory processes are designed and implemented by other teams or the municipality itself. This separation means that those who design the spaces are often not those who engage with future users. Combined with rigid timelines, technical requirements, and administrative hierarchies, this systematically reproduces power imbalances. As an urban planner (female, 37) observed: "We talked a lot about roads and permits, etc., and who can clarify what, and where a crosswalk is possible and where it is not. And then the child's perspective sometimes gets lost." This illustrates how these technical and regulatory concerns can dominate planning discussions, pushing children's needs to the margins even when planners express commitment to them.

Children's participation was mostly focused on spaces explicitly designated for children rather than other open spaces. This limits children's input to specific spaces rather than the broader suburban fabric. As Fattore et al. (2017, p. 64) connect self-determination directly to decision-making, the capacity for extending children's range of action onto the entire neighborhood is important to their well-being. By limiting participation to playgrounds and schoolyards, planning practice reinforces spatial hierarchies where certain areas "belong" to children and others do not. This reproduces the segregated spatial logic criticized in debates on child-friendly planning, where children's agency becomes acknowledged, yet spatially contained within designated environments.

The intuitive approach some planners described carries the risk of selective integration, potentially reducing children to objects of planning rather than dialogue partners. Similar to the critique of tokenistic participation (Hart, 2013; Kaplan & Janečko, 2026), children's involvement often remained consultative and adult-mediated rather than genuinely shared or child-initiated.

This gap becomes evident in the planners' emphasis on nature-based learning while overlooking digitally mediated practices through which children organize encounters, mobility, autonomy, and belonging in physical space. It suggests that adult definitions of children's well-being may differ from children's actual interests and practices. Engaging children as dialogue partners rather than as objects of planning may support a more nuanced understanding of children's use of open space, informing designs that are genuinely child-friendly.

4.3. Mobility

4.3.1. Mobility, Traffic, and Children's Safety

Children are featured prominently in mobility-related planning considerations, particularly in efforts to develop low-traffic neighborhoods. Planners therefore sought to enable children's autonomous mobility via

strategies ranging from restricting motorized traffic on specific streets to creating intersection-free pathways and establishing route connections through open spaces.

The associated spatial elements included low-traffic and car-free open spaces such as parks, green corridors, and dedicated cycling and pedestrian routes to provide children with safer and broader mobility options throughout the neighborhood. For example, an architect (male, 51) explained: “It is precisely these informal opportunities for children to move around between the blocks, where there are no cars and where they can meet each other, that are included in almost all of our planning.” Path connections influenced the strategic placement of social infrastructure—particularly schools—and open spaces, to encourage movement into the neighborhood. Similarly, mobility hubs with integrated children’s facilities were increasingly incorporated into suburban planning and positioned with spatial connectivity in mind. By combining alternative transport modes with public transit access and social infrastructure, these hubs aim to reshape mobility habits while creating public spaces that prioritize safety, comfort, and inclusion. Safety emerged as a paramount concern, with planners adopting pedestrian perspectives and anticipating potential hazards, including less obvious dangers affecting children’s movement through space.

However, formal planning requirements sometimes constrained these child-centered mobility considerations. While mobility objectives were often explicitly integrated into planning requirements, such as connections to open space systems or the provision of neighborhood garages, creating child-friendly mobility options was not always compatible with these mandates. As one planner noted: “This road was...a given, so there was nothing I could do about it, with a width of over 30 meters...four lanes, a tram....Basically, impossible for children to cross.” (architect, male, 46). This highlights the challenges planners face in realizing autonomous mobility for children within existing urban frameworks.

4.3.2. Children's Mobility in Car-Dominated Cities

Mobility was where children’s well-being became most readily actionable, as safety, routes, crossings, and traffic reduction translate into planning requirements more easily than privacy, appropriation, or self-directed play. Traffic limits children’s autonomy because spatial freedom depends on moving freely. Although planners employ various strategies to create traffic-calmed areas with children’s autonomous mobility in mind, cities remain dominated by cars. Heavily trafficked streets and major roads undermine children’s sense of security and limit their autonomous behavior in public space (Fattore et al., 2017, pp. 100–101). Beyond direct safety risks, unsafe traffic conditions often lead to heightened parental supervision (e.g., Visser & van Aalst, 2022), with busy streets functioning as spatial boundaries that confine children’s movement. This resonates with findings on independent mobility, where accessible informal green spaces within low-traffic environments support autonomy and peer interaction—conditions that a car-dominated suburban fabric structurally undermines (Hillman et al., 1990; Michail et al., 2025). Importantly, mobility challenges extend beyond moving traffic. Parked cars also constrain children’s spatial possibilities, obstructing sightlines, occupying potential play areas, and creating additional navigation barriers. While neighborhood garages, mobility hubs, and reduced on-street parking address this issue structurally, in practice, planners’ discussions focused predominantly on moving traffic.

4.4. School Grounds

4.4.1. Schools as a Semi-Public Space: Tensions Between Access and Safety

Besides daycare centers and playgrounds, schools and their grounds were one of the first sites mentioned by the planners when asked about children's spaces in suburban developments. These facilities are not only central to children's daily routines but also form essential nodes in the planning of suburban housing areas, not least because the school's catchment radius functions as both an evaluative criterion and a design benchmark for residential neighborhoods, as one landscape architect (male, 51) elaborated: "We're measuring and checking how far it is from the school to the house at the far end."

In new suburban developments, schools are more than educational facilities; they are planned as early anchors of neighborhood formation. Because everyday social infrastructures have not yet fully emerged, school grounds, daycare facilities, parks, and mobility routes are expected to structure future routines, encounters, and community life. Schools and their grounds emerge as fundamentally semi-public spaces, caught between planning ideals of openness and institutional concerns about liability. This reflects broader debates on threshold and "in-between" spaces, which conceptualize schools not only as educational institutions but as socially shared environments mediating between neighborhood, open space, and community life (Bazaiou, 2024; Weir, 2023).

A recurring theme in the interviews was the question of public accessibility. While some planners advocated for opening school grounds with few or no fences—"so that they do not become gated communities" (landscape architect, male, 55)—others noted strong administrative resistance on liability grounds. Rather than balancing risk against children's autonomy and spatial freedom, the question of public accessibility was frequently managed through institutional precaution and liability avoidance, a dynamic central to Beck's concept of risk society (Beck, 2022).

A further design aspect concerned the location of schools and their integration with the surrounding public green and wider landscape. In several designs, schools and school grounds "were oriented towards the public green space" (landscape architect, male, 57). One architect (female, 45) described the integration in more detail:

There is this connection between the facilities and the public open spaces. And here there is also a primary school...which is then connected to this...park. And here there is an existing school...and they are also connected via the...[park], via this existing avenue, which runs right through here.

This spatial openness, however, raises questions about control and boundaries. As one landscape architect (male, 51) noted: "Ultimately, these schools are mostly closed districts. We thought it was a good idea to place them on the outside so that they have a connection to the landscape." The statement illustrates the ambivalence already identified in literature on semi-public school environments: Schools are simultaneously conceived as protected institutional spaces and as socially open interfaces connected to neighborhood and landscape (Bazaiou, 2024; Harber, 2021).

The question of whether school spaces should be open or enclosed remains contentious in developing new neighborhoods (Klepp & Million, 2022). Planners must balance liability concerns against the desire for multifunctional use of the space by the wider community. Despite these institutional barriers, interviewees emphasized the pedagogical value of landscape connections. One landscape architect (male, 51) describes schools as “very closely linked to [the landscape], because...this is also a very important educational topic.” Another (landscape architect, male, 79) highlighted how teachers can integrate landscape and “wilderness” into their curricula. This pedagogical perspective also informs ideas about temporal flexibility in access:

I'll also include the playground right next door, so that this area is expanded. The difference between school and after-school hours is somewhat fluid, or there are transitions. So that I then end up with relatively large open spaces in the school areas. (landscape architect, male, 79)

This concept suggests that schools could function differently at different times—more controlled during school hours, more publicly accessible afterwards—thereby embodying their semi-public character through temporal rather than just spatial boundaries (Bazaiou, 2024). Overall, the interviews suggest that planners increasingly consider permeable boundaries between schools, open spaces, and surrounding landscapes as an important component of suburban child-friendliness, particularly in peripheral contexts where proximity to agricultural and cultural landscapes can be integrated into everyday routines and learning practices.

4.4.2. School-Landscape Connection for Children's Well-Being

Opening school spaces to their surrounding landscape and understanding school grounds as semi-public spaces may support children's self-determination (Fattore et al., 2017, p. 64) by expanding their choices about where to go and what to do. However, public spaces are not generally seen as safe by children or their parents, and schools with clear demarcations function as a relatively risk-free environment. At the same time, children's well-being is related to challenges that they set for themselves—more formal and designed spaces are sometimes not those where children gather, as they seek unexplored spaces discovered and claimed over time.

The developmental need for spaces without adult supervision, where children can test boundaries and negotiate rules among peers, may be compromised by certain planning approaches. In one examined design, the concentration of children's infrastructure in a designated campus area where supervision becomes omnipresent and hideouts scarce limited informal, unsupervised interactions. While not representative of all planning practices observed, this example illustrates an inherent area of tension: Planning supports the physical conditions for a looser use, but it cannot fully reproduce the unsupervised and sometimes transgressive qualities children seek. Such spaces emerge through physical design conditions combined with factors beyond the control of planning, including children's own agency, community norms, and cultural attitudes towards children in public space.

The pedagogical benefit of landscape connection that the planners emphasized reveals the ambivalence of adult proxy knowledge: Landscape and nature-based learning are legitimate spatial qualities, but their prominence may underplay other contemporary practices through which children organize autonomy, sociability, and belonging, including digitally mediated meeting practices and commercial destinations.

5. Conclusion

This article asked how planners conceptualize children's well-being when planning open spaces in new suburban housing developments, and how these conceptualizations align with or diverge from children-derived well-being domains—agency/autonomy, safety/security, and self/identity. Applying this lens, we identify alignments, divergences, and blind spots in professional planning perspectives.

Overall, planners described children's well-being as a relational and spatial matter that is supported by everyday access, freedom of action, and opportunities for appropriation. Yet across the interviews, it was often translated into proxies that are easier to plan for—most consistently safety/security—while agency/autonomy and self/identity were harder to operationalize within standard procedures and timelines. This uneven translation became visible across open space design, participation, mobility, and school grounds. These fields differ, but they point to the same underlying pattern: Children's well-being enters planning most easily where it can be attached to recognizable instruments, responsibilities, and spatial typologies. It becomes more difficult to sustain when it depends on openness, informal appropriation, unsupervised peer life, or uses that remain ambiguous from an adult planning perspective. The material also points to a bias in adult imaginaries of childhood, especially where nature- and pedagogy-oriented ideas of good childhood risk overlooking children's contemporary lifeworlds and less sanctioned forms of spatial practice. The central issue is therefore translation, not visibility.

New suburbanity intensifies this difficulty. The family-friendly promise of suburban development makes children highly visible as imagined users, while long timelines and early-stage development conditions often make them absent as actual participants. At the same time, the ambition to create urban qualities at the metropolitan edge places particular pressure on open spaces, schools, and mobility systems: They must support everyday urbanity, compensate for peripheral location, and organize care, education, recreation, and movement at once. The suburban legacy of safety, landscape proximity, privacy, and controlled residential environments remains powerful, even where planners seek density, mixture, openness, and autonomous mobility. New suburbanity, therefore, creates both opportunities and constraints for children's well-being: It can provide open-space networks, traffic-calmed routes, and integrated educational infrastructures, but it can also translate children's needs into managed, programmed, and adult-defined environments.

The three well-being domains make this uneven translation visible. Safety and security fit most readily with existing planning rationales because they can be formalized through regulations, responsibilities, and spatial safeguards. Agency and autonomy require more than access or movement; they depend on the possibility of appropriation, negotiation, and unsupervised use. Self and identity are least directly addressed, because privacy, withdrawal, peer culture, and informal belonging rarely become explicit planning categories.

Ongoing research with children in these suburban housing areas will allow us to relate these professional rationales to children's own open-space needs and practices.

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Conflict of Interests

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Data Availability

The data supporting the findings of this study are not publicly available due to confidentiality agreements with participants and the risk of identifying individual respondents. Anonymized data may be available from the corresponding author upon reasonable request, subject to ethical considerations.

LLMs Disclosure

During the preparation of this work, the authors used DeepL Translator, Claude.ai, and ChatGPT to improve sentence style, grammar, translation, linguistic elaboration, and refinement of English text.

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