



Article

'The Feel of the Stones, Sounds of Cars, the Different Smells': How Incorporating the Senses Can Help Support Equitable Health Promotion

Andrew Barnfield

School for Policy Studies, University of Bristol, Bristol BS8 1TZ, UK; andrew.barnfield@bristol.ac.uk

Received: 10 May 2020; Accepted: 20 June 2020; Published: 23 June 2020



Abstract: There has been limited consideration to the role of the senses in health promotion regardless of the prominence placed on corporeality in intervention and prevention strategies. Touch as a form of sense-making challenges the representational approaches that characterize health promotion methods to increase participation in physical activity. This paper explores recreational running practices through the sense of touch and is drawn from an in-depth qualitative research project with recreational runners in the Bulgarian capital Sofia. The project examined how recreational running was established and maintained within the city. This paper concludes that there is potential for health promotion to adopt a more open stance towards the study of sensual experiences of the built environment. Insights from approaches attentive to the senses hold promise for agendas and interventions in health promotion practice and intervention.

Keywords: running; health promotion; touch; built environment; senses

1. Introduction

"It is strange. The first six or so times it is a strange feeling to be running in the streets. You have to get used to it. The streets are not always the best place to run. I still feel uncomfortable sometimes. The feel of the stones, the sounds of cars, the different smells. Sometimes it puts me off and other times I enjoy it". (Maria, regular runner for three years, interview in 2017).

Cities present many challenges to people who want to maintain health promoting practices. Whether this is physical, mental, or social health, cities across the world offer a variety of constraints (Devarajan et al. 2020). These constraints include volume of traffic, quality of streets and green space, lighting, and volume of people (Barnfield 2019; Ettema 2016). In this paper, I qualitatively look at what it feels like to run in a city and what thinking with touch can do to our understanding of equitable health promotion and the built environment. The reason for this, as Maria who started to run for exercise in 2014 identifies above, is that the built environment can not only constrain but also works on bodies in different ways. Physical activity participation is gendered and classed. More men than women are able to meet the minimum levels for health benefits (Coen et al. 2018). The more well off have higher participation levels (Cereijo et al. 2019). Some of the reasons are due to aspects of contemporary society, such as work duties, caring responsibilities, and expectations of specific roles within society (Mailey et al. 2014). But some are due to the way cities are constructed that makes physical activity unenjoyable or sensed in ways that produce negative affects (Spinoza 1996). This is what Spinoza called an interaction that diminishes or restrains the body's power of activity that is sensed by a body as uncomfortable or unpleasant experiences.

Davidson and Milligan (2004, p. 523) write that the body is the site of our most immediate felt geography and that sensual experience can be comprehended "as a form of connective tissue that links experiential geographies of the human psyche and physique with(in) broader social geographies of

place". Physical practices offer a particularly immediate appreciation of senses and place. Saville (2008) argues that in parkour, the sense of fear is a multilayer experience that happens through the touch of the different textures of concrete and other materials that practitioners utilize as they learn to navigate across big drops, large gaps, and steep inclines in the city.

The concept of touch I use in this paper is drawn from Paterson's (2007) notion of touch that is more akin to the concept of haptic sensation. Haptic sense is a conglomeration of a range of sensual receptors. Paterson (2006, p. 694) has delineated a 'Terminology of Haptics' that conceptualizes how the different sensual elements are enfolded within the notion of haptic-touch,

"Haptic: Relating to the sense of touch in all of its forms. Proprioceptive: Relating to sensory information about the state of the body. Vestibular: Pertaining to the perception of head position, acceleration, and deceleration. Kinesthetic: Meaning the feeling of motion. Relating to sensations originating in muscles, tendons, and joints. Cutaneous: Pertaining to the skin itself or the skin as a sense organ. Includes sensation of pressure, temperature, and pain. Tactile: Pertaining to the cutaneous sense but more specifically to the sensation of pressure rather than temperature or pain. Force feedback: Relating to the mechanical production of information sensed by the human kinesthetic system."

This conception emphasizes the multifaceted or 'multi-sensuality' nature of touch to underscore the interplay of the senses, which is incredibly complex. Sedgewick (2002, p. 15) describes the sense of touch as occurring at the border of different senses, "the sense of touch, texture itself, is not coextensive with any single sense, but rather tends to be liminally registered on the border between touch and vision". The complexity that Sedgwick describes is an attempt at grasping the way senses combine to develop perceptions of situations and interactions that occur with more than the visual (Barnfield 2016a).

Holding on to the complexities of the senses opens a world of possible ways to understand experiences of the built environment (Degen and Rose 2012; Ebbensgaard 2017). This is important because in order to foster equitable health promotion, the first step is to ensure equitable environments for exercise. This entails embracing different forms of knowledge and experience instead of solely focusing on biomedical knowledge related to body weight (Coen 2018). It requires foregrounding bodily democracy. Developed by Henning Eichberg from his ideas around popular movement cultures as a counterpoint to organized and professionalized sport, this is the concept that every person should be able to experience the somatic pleasures and wellbeing available through bodily movement and fitness practices (Eichberg 2010).

To ensure equitable health promoting participation requires providing, through social intervention, equitable access to exercise (Williams and Gibson 2018). This requires building social infrastructure that is open to all sorts of bodies, such infrastructures are crucial for social cohesion, health, and wellbeing (Klinenberg 2018). Social infrastructures are the spaces where people can meet and participate in different activities together, for example, parks, recreational centers, and swimming pools. In this paper, I argue that the incorporation of the senses is needed to develop social infrastructure for promoting physical and mental health that is equitable and enjoyable for all.

The article is organized as follows. I first introduce the project on running from Sofia with study and data analysis methods. I then introduce the felt experiences of running in the city through participants' footpaths, roads, and routes, before turning to how touch is felt by effortful bodies interacting in the city. Next, I outline how thinking with touch can animate the built environment. The discussion explores the findings of the paper and what key lessons can be learned from thinking with touch for health promotion and the built environment. Finally, in the conclusion, I consider the limitations of the project and outline avenues for possible future research.

2. Methods

The project in Sofia was conducted from September 2013 to March 2017 to examine the practices of recreational running and use of the urban environment by recreational runners during their regular runs. The fieldwork visits took place from September 2013 to May 2014 and May 2016 to March 2017 and were supported by regular field visits in the intervening periods. The project employs qualitative methods: Participant observation of recreational running, qualitative interviews with running club participants and club organizers, and running diary-interviews. Participant observation was used to attend to day-to-day use and experience of urban space (Burawoy 2009). This included running in organized events, participating in recreational running activities and my own running in Sofia. The project involved 36 participants (16 female and 20 male). Ages range from 19 to 48 years (the running club organizers interviewed were both male, aged 34 and 45 respectively).

The project started with an online survey sent in autumn 2013 to runners via running club social media pages (153 responses—62 women and 91 men). The survey was used to develop themes and areas of interest that were followed up by qualitative interviews. The interviews were semi-structured and lasted approximately 45 min. The interviews were recorded and transcribed verbatim. Data analysis was conducted using Nvivo11 to identify key themes.

The themes were informed by my own running experiences and running diary as well as results from the survey and the qualitative interviews and diary material from the participants. This corresponds to Braun and Clarke's (2006, p. 83) analysis template for a rich theoretical thematic analysis of the data set to enable the predominant themes from the research project to be reported in this paper. Assessing the complete data set in this way drew attention to sensual experiences of the built environment from running within the city.

The participants in the study had different occupations. This included in education, web-development, legal and financial sectors, sales and business analytics, and university students. They also had different levels of formal education—from high school diplomas to university degrees. The socioeconomic status (SES) of the group was mixed, as measured by OECD Health Statistics (OECD 2018). The running experiences ranged from beginners (six months or less) to experienced (five years or more). All participants were Bulgarian. All names are pseudonyms. The interviews were conducted in English and Bulgarian. Translations were made by the author during the analysis process.

The choice of Sofia is twofold. First, Sofia has the fifteenth largest population of cities in the European Union, sharing many of the same challenges: Urban redevelopment, private vehicle use, air pollution and inequalities in health and wellbeing. It is a case study from which researchers from across Europe and beyond can learn. Second, following Jenny Robinson's (2006) Ordinary Cities critique—that knowledge of life in cities is based a small set of 'global cities' which hampers how we comprehend how different cities organize, operate, and grow life—Sofia is illustrative as a fieldwork site as it challenges the hegemony of Berlin, London, and Paris (Barnfield 2018).

3. Results: Running in the City

3.1. Footpaths, Roads, and Routes

The idea that the senses are useful to understand urban experience is not new. In the early 1900s, both Simmel (1971) and Benjamin (1999) suggested the senses as a tool to understand the fast-changing experiences of industrializing cities (see also Tuan 1977). Degen and Rose (2012, p. 3273) have identified three features that recent work on the senses neglects: (1) A lack of investigation of the immediate corporeal experience of urban dwellers' day to day experience with little attention paid to how the built environment engages people or the felt experiences that such environments elicit, (2) research has prioritized attempts by authorities to create a new visual order without recourse to the multiple sensory registers, (3) that this lack suggests the need to explore how sensory perception is mediated by different spatial and temporal practices.

The experiences of the runners in Sofia cover many different parts of the city. The different areas offer a variety of different experiences from grass, gravel, and mud to asphalt, paving stones, and cobblestones. There are different degrees of maintenance, obstacles that are encountered, and spatial configurations that are part of routes that lead to different sensuous experiences. This includes high-rise residential neighborhoods to tight, narrow streets. This was an issue that Sliven encountered when he began running in 2010. He explained in 2016 that he had to acquire knowledge of where to run and how they felt, 'It was tough to start as it was autumn, and the streetlights did not work so bright. My neighborhood had a dangerous feeling. I had to look for a place to go and study new places. I have this new thinking about places now.' Finding somewhere to run in any city presents different challenges, especially if it is someone new to running. Thinking about how somewhere will feel does not feature in most people's thinking prior to running (Hitchings and Latham 2017; Barnfield 2019).

Aniel, who was a new runner in 2014, explained that he "started very amateur, casual outfit and running shoes ... I started to learn my route through how I felt. I had come to this by accident through running and started to look for a route this way. The roads in my neighborhood and the footpaths are ok and I can make a lap. It helps that they are flat". Aniel is explaining that he learned how to run by the way the surface felt and how he felt when he ran: He was feeling his way into running through kinesthetic sensation. In addition, Aniel suggests that it is the flatness of the route which is important as it allows him to run laps instead of one continuous run. He has developed his running over the years but still thought about how the routes would feel through his footwork as he became more attuned to running.

Writing about rural routes for walking and mountain biking, Brown (2017) has also found that the sensations of the path or track are important ingredients of sensuous experience. Different textures, gradients, lumps, bumps, and resistance proved to be integral to motivations of movement. Brown suggests that the act of sensing the surface through bodily touch has the potential to be an important element in animating a suite of affects that facilitate regular participation in outdoor physical activity.

The perceptions of the environment are an important element in the initiation and maintenance of a physical activity practice. In examining running in the Netherlands, Ettema (2016) found that attractiveness and restorativeness were positively associated with the quality of the running surface as well as running in parks or outside towns and negatively associated with running on public roads in town. This is similar to the experiences of Rumiyana, a regular runner, who explained in early 2017, that she mainly ran in the city's parks as they offered a variety of routes and surfaces that helped to keep her running interesting and comfortable, "I do like to run in the park, it is nice because of the different surfaces. The tracks go through the woods and there is grass and mud as well as sandy gravel. I feel the difference throughout my body". The different sensations act as a motivator to enliven different routes, spaces, and types of movement. The experiences of the runners in Sofia suggest that there is a need to think about how surfaces produce different haptic pleasures and feelings, such as play or immersion.

This sensuous connection with the landscape is important. As Ingold (2011, p. 46) highlights it is through our feet and footwear that we are most in touch with the landscape, "for it is surely through our feet, in contact with the ground, that we are most continually 'in touch' with our surroundings". It is through footwork that people become attuned to the world around them. The runners discussed how they felt running in certain spaces or certain routes and how they found routes that felt better for their body, they could run more easily, or that gave rise to certain bodily sensations. Albena, who has run since her first child was born in 2011, explained when I interviewed her in the spring of 2014 that the feel of the pathway when she started running helped to keep her motivated, 'as soon as I got to the good area near my zone [neighborhood] I said to myself yes, I can do this, I got the feeling it was smooth and I am thinking that I was going so fast!'.

Milena, another regular runner, explained that she looked for routes that were undulating as this interaction produced more positive emotions, "I like to be running outside. It gives good feelings to be out in the city or on the trails. It gives me many positive emotions. It is the feeling of the surface going

up and down that I really enjoy". These experiences are part of developing sensuous knowledge of running conditions. For Milena, it is the way the landscape feels as it goes up and down that makes running enjoyable.

However, the interaction with hard or uneven surfaces can lead to the perception of the city as a precarious place to exercise (Ettema 2016), as Yourdan, an experienced runner, explained, "safety is a big issue for me, the streets and roads are too dangerous. Most parks have asphalt paths that do not give runners any encouragement. If I run in the street I'm surrounded by fast cars and strong fumes". How the runners make sense of urban space and their understanding of it is wrapped up in all the embodied forms of knowledge that is developed by the ways it is imagined, regulated, and used (Harrison 2000). For example, the runners' experiences suggest that the city is a place for traffic, speed, and private transport.

This is developed by Yelena, who enjoys running frequently but finds conditions difficult. Her main problem is how the road and footpaths feel as she runs. Yelena explained in 2014 that she has few options regarding where to run, "the road facilities are really bad. The landscape of the city restricts runners, the quality of the sidewalk is poor. When I run, I must look at the paths constantly and they feel bad when you catch the edge of a bad [uneven or broken] pavement. It feels harsh to run on. I run only a little bit in the streets and roads. I have to find somewhere that feels softer".

Irmena, a new runner, commented during an interview in 2016 that she has to run in the parks "it is a better feeling for my body. I like the feeling of the ground, the trails, and the grass. The footpaths are broken and uncomfortable, the roads and air are dirty and not good". Yelena and Irmena's knowledges are experienced through the proprioceptive sensation of their body in action. Their problems with the surfaces relate to Komarova's (2014) research on walking conditions in Sofia, where pedestrians discuss the extra sensory requirements that are part of walking on cracked or uneven paths requiring extra focus and effort. The runners explained that running on surfaces like these produces feelings of alienation and displeasure within the city when running.

Likewise, Anna, an inexperienced runner who had been running for only six months in the summer of 2016, explained that frequently, the surfaces made her feel hesitant, "the streets get flooded and the water doesn't drain anywhere. Also, some of the tiles are shaky, so water gathers under them and splashes when you step on them—not to mention the risk of ankle injuries. Some pedestrian paths are very muddy, and I have to run on the asphalt, which is also dangerous".

In contrast for Atanas (and like Aniel above), the smoothness and firmness of footpaths and roads helped him to run with speed, "my regular route involves running from my neighborhood to the West Park. I like the beginning as I run on the new road and it's downhill, but the park is gravel. It crunches and cracks, so I must adjust as my feet slide a little. It feels bad for my knee. The footpaths are hard, but this is ok for running quickly". Lorimer (2012, p. 83) has written through an impassioned personal history of running, the sensual ways that different surfaces enable runners to develop a heightened feeling of sensuality within the landscape. For Atanas, the roads and paths in his neighborhood provide a quick running track that have a quality of homogeneity that are part of what he likes to run on. Atanas had been running for three years and was looking for somewhere that was "safe and felt good and meaning I could get home quickly".

These feelings of safety, comfort, or anxiety were experienced by many runners when they examined their running experiences. Atanas felt safe possibly because he was close to home when running, while for Anna, she was new to the city and was exploring spaces to run and this led to contrasting emotions. Experiences such as Anna's can be part of the reasons stopping people from running in the city.

These experiences are interesting in two ways. First, the experienced runners enjoyed running more often on roads and footpaths, while inexperienced runners preferred parks and pedestrianized areas. Aspects of this are related to attuning to the rhythms of the city that happens through repetition or patterns of employment and residence. Second, gender could potentially play a role in location with marginally more men than women preferring to run in neighborhoods or areas away from public green

spaces. However, this is not a central focus of this paper and is an aspect that needs to be examined further in future research of women runners in Sofia (see (Krenichyn 2006) for experiences of women running in parks in New York as they provide opportunities for a physical challenge, mental escape or restoration, and social connection).

3.2. Bodies, Interactions, and Experiences

Attempts at improving running participation have focused on access to a supportive social milieu that helps with encouragement to maintain commitment (Stevinson and Hickson 2014) or the accessibility and connections of urban neighborhoods (Frank et al. 2008). However, and as Latham and Layton (2019) argue, by attending to the times and places where recreational physical activity and fitness happen, including for different groups, it is possible to learn how to construct inclusive and accessible spaces that can facilitate exercise practices. The interaction of bodies and how different spaces feel would be beneficial for health promotion as it would open up new configurations or material arrangements (Barnfield 2016b).

Oggie, a regular runner, is demonstrative of the notion that running is developed through tactile interactions. He has chosen streets and more open areas of the city because of how they feel. In 2016, he explained that streets and open squares are pleasurable to run in as he feels the connections with other bodies, 'You know, I run in places where it feels nice, I can't really explain so well. I like the more open bits of the city like near NDK [palace of culture] and the streets that are not busy with cars. The feeling of freedom and feeling the air is important to me. The sense of other people doing things is good too. For me, the interaction is important'. Oggie's tactile experience speaks to Hockey and Allen Collinson's (2007) argument that touch is an active sensation that combines pressure between the sporting body, terrain and equipment, together with a kinesthetic awareness of the body as it moves.

In running research, touch has been found to be involved in the establishment of corporal knowledge of being in the landscape (Allen-Collinson and Hockey 2011). Runners develop a knowledge of landscape through touch that is fostered by a sensual interaction with the landscape and is specific to sporting activity and the relationship to the environment. These skills include learning how the different environments help or hinder running, specific changes to the surfaces due to weather, and understanding changes in the body while running.

Emile is a frequent runner, who only runs in the city. She explains that her body has developed along with the experience of urban space. 'I have grown my knowledge of my physique [body] as I can run more, for longer. I have made this 'intelligence' [knowledge] in the street. I run during the times when the streets and roads are quieter. I must feel positive to run and the way streets turn or get narrower or have a bad part or a good part. This is how I started running and it is part of me'. The runners in Sofia experience their activity through haptic interactions. This includes a combination of tactility and motion that generate information about the character of bodies, objects, and space (Rodaway 1994; Paterson 2006).

Developing such corporeal knowledges is part of acquiring skills to be active in cities. This is not restricted exclusively to runners. Cyclists in Sofia have been found to develop a set of bodily skills that are cultivated in concert with objects, landscape, and daily interactions with other road users that mingle with individual notions of safety and fear (Barnfield and Plyushteva 2016). These are skills that are developed over time, offering multiple mobile spatial and material interactions.

Thinking along these lines suggests that different types of exercise are not fixed, and participants acquire different approaches depending on their personal and sensual geographies of their built environment. It also points to the challenges of designing the built environment that is open to different activities happening at once. Atanas, who was introduced above, expounded, 'I do different sports, I enjoy doing running, walking, or football whatever it is. I think that in the city, some things are easier than others. I remember doing a team run. This made problems for us with cars, people, and so on. Other people are not welcoming you'.

Vigorous physical activity foregrounds touch in ways that emphasize bodily experience as sense-making. Allen-Collinson and Owton (2015) introduce the term 'intense embodiment' to describe periods of heightened awareness of corporeal existence that are evident in running and boxing. It connotes a positively heightened sense of corporeal 'aliveness', of the senses working at an intense level through experiences of heat and cold. While, in marathon swimming, Throsby (2013) argues that a 'shifted sensorium' develops new possibilities for experiencing the body in the world that emerges through training and the touch of the materiality of the water on the body.

Sliven, who was introduced in the previous section on routes, echoes these notions, 'I put my shorts, shoes, and top on and I 'hit the pavement' and I feel totally different, like a new person. I can appreciate my body in new ways too.' While Vera, a runner who moved to Sofia in 2012 from the Eastern part of Bulgaria, feels her body and the city in novel ways, 'I definitely feel my body in new ways, different ways. I also understand the city in different ways, I search for things I didn't recognize before ... like shadow or paths that sound interesting'. Touch provides a resource for disciplines and issues, such as public health, health promotion, and physical activity participation. And running and thinking with the senses presents opportunities to not only "flesh out what touch is, [but] how it works and its import for understanding what constitutes 'human'" (Dixon and Straughan 2010, p. 456).

3.3. Animating the Built Environment

How to encourage people to be more active has been a big challenge to urban planners and designers. Giles-Corti et al. (2016) have proposed a set of indicators to benchmark and monitor progress towards achieving cities that promote health and reduce health inequities. This involves designing pedestrian-friendly and cycling-friendly cities that will help to reduce inequities and produce co-benefits across multiple sectors. They conclude that the design of infrastructure is, therefore, an essential element of a multilevel, multisector response to face the major global health challenges of the 21st century (p. 2919).

Built environments for running can be specially designed to foster participation. Qviström (2013) discusses the model running facilities that were constructed in Sweden during the 1950s and 1960s. This included lights, a wooded route, and changing facilities combined with pulse checks and health information. Qviström suggests that this social landscape of running was emblematic of the social welfare society that encouraged all citizens to take care of their cardio-vascular health.

To think with touch pushes this idea a little further. It involves thinking about how spaces and emotions are experienced between bodies. Running in cities is about inserting one's body into urban space and experiencing the feeling of urban space itself with its mixture of other bodies, non-human entities, and objects. Touch is about the way moving bodies animate space, changing how spaces feel and are experienced (McCormack 2014). This invites a consideration of the rhythms of the bodies and types of running that happen in cities. Larsen (2019) explored the running body and its rhythmic inhabiting of landscapes in running events. He argues that rhythms of running are not simply linear but are experienced corporeally as cyclical moments of 'eurhythmia' and 'arrhythmia' (Edensor and Larsen 2018). The interplay of rhythms and bodies are key elements to running in cities and are part of running events that look to enliven urban spaces and how they are experienced.

The runners in Sofia attended free to enter running events that were organized by recreational running groups. The organizers were aware of how the presence or feel of other bodies in the running events shaped the sensations experienced by participants. An organizer, Rumen, who had overseen a Saturday morning run for more than five years, explained how they have made public runs work by bringing bodies together to encourage participation:

"We have learned that we need to get the runners to either run a route where everyone can see each other or a couple of laps, so people feel they are running together. It is important for people to feel like they are running together, especially in the shorter distances. People need to be able to share experiences of running in a group, otherwise, it is not good for people to

get together. People have many options in Sofia, so we need to show them this is an activity they can do in a short time, that is fun, and with other people".

In a similar way to Rumen's comment, Rosen explains in his organization of a different running group that their aim was to create a public event through moving bodies. In this case, it is about generating the setting for certain atmospheres of sensation. He explained that:

"What we are trying to do is make running a public happening. We have bigger events planned that showcase running for enjoyment and experience, not just for speed, fitness, or something that people do on their own. We are looking to change what people do in the parks or streets. We started the club after the marathon was stopped as the atmosphere such an event creates is really nice. We want to spread this, and help people get fit, of course".

In the running events, touch is a distributed sensation that is experienced as a group transmission. It is akin to the way Manning (2013, p. XVI) has described touch as a method of comprehending moving bodies "the act of reaching toward, of creating space-time through the worlding that occurs when bodies move". This is about movement through intra-corporeal and inter-corporeal processes, about the body as a single movement and fragmenting through a collection of different movements, of relations of speed and slowness. The key for the running events is not to emphasize speed. Rather, it is to bring together bodies of all speeds and slowness (Barnfield 2018). Touch, here, signifies the enmeshing of bodies in public space, not as a physical, tactile sensation of bodies touching bodies but the modulation of space that is created by groups of bodies running, encouraging, and changing the felt dynamics of space (McCormack 2008). It is an attunement toward moving bodies and space. For the groups, it also speaks to a spatial orientation that approaches space not as a container but as a field of felt intensities. A field that can be harnessed to be conducive to equitable physical activity.

4. Conclusions and Discussion

The argument this paper has been making is that the incorporation of the senses into how the built environment is designed, maintained, and accessed is important to encourage equitable health promotion. This is critical because the first step to ensure equitable health promotion is to foster environments that encourage activity for all. The idea behind this is to animate bodily democracy through the built environment to enable all people to experience the bodily pleasures and wellbeing that can be accrued through exercise and fitness practices (Eichberg 2010; Klinenberg 2018). Importantly, this entails embracing different forms of knowledge and experience.

In this paper, I have drawn attention to the experiences of runners in Sofia through the concept of touch drawn from Paterson's (2006) notion of haptic-touch. In doing so, I add to the growing body of research that unpacks sensual experience of everyday life in cities and the spaces, places, and experiences of exercise (Degen and Rose 2012; Ettema 2016; Latham and Layton 2019). The runners' experiences in Sofia offer insight into the challenges of running in a city and designing inclusive built environments. It complements the recent work of Giles-Corti et al. (2016) and their development of key criteria for healthy urban development, whereby the use of the senses can be an additive that can foreground how spaces feel in all sorts of ways. This would ensure that the built environment is designed not only for different sensual experiences but for different people and ways of inhabiting the built environment. As the runners in this project show, the built environment needs to be engineered to be inclusive not only to different bodies but also to different bodies doing different things at the same time.

A learning point from the project in Sofia that can be generalized is that the built environment does not require extensive re-building to be suitable for equitable types of exercise and fitness. What is required is an approach to planning the built environment that does not seek to maximize vehicle movement and speed, direct movement towards commerce, or understand urban space from a single perspective. This is about animating the built environment in particular ways, and this is what thinking

with senses allows. Whether this is providing opportunities for bodies to interact in certain ways, the use of lights to encourage feelings of safety or amusement, providing different surfaces or obstacles to enable different speeds and slowness, or even restricting or amplifying different sounds. This would go some way to making the built environment more amenable to different types of physical activity and sensual experience.

A limitation of this study is that seeking to understand sensual experiences of the built environment for health promotion is produced by smaller-scale projects. While this is both a strength and a weakness, the descriptions are unavoidably subjective, and the core themes need to be unpacked with care. The use of running interviews, running diaries, and ethnography asks participants to explain their feelings, which can be difficult to pin down to a single answer or single sensual response. Attempting to capture ephemeral sensual experiences and then to describe it for a written audience is a difficult task. That being said, qualitative insights into the experiences of the built environment for physical activity participation does hold potential for understanding the complexities of everyday interactions (Barnfield 2016c). Care is required to retain as much of the richness of research material as possible.

Future research is required to explore the complexities of running in cities further. There needs to be a greater focus on the racialized, gendered, classed, and aged aspects to running in cities and how this is associated with different types of bodies and experiences. Incorporating these experiences is important for developing equitable spaces and physical activities. Research and practice need to be sensitive to the senses in order to develop equitable access and use of the built environment. In research terms, theoretical-methodological models are required that foreground qualitative experience that prioritizes diversity of people, places, and experiences.

Finally, focusing on sensual experience for health promotion would help to broaden the field of knowledge and people that would be considered in programs designed to improve health and wellbeing (Coen 2018, Coen et al. 2018). It would help to reduce the inequality paradox by creating interventions that are intersectoral, participatory, and sensitive to the needs of, and avoid potential adverse outcomes to vulnerable groups (Frohlich and Potvin 2008). This is essential if we are to ensure cities and good health is for the many and not the privileged few.

Funding: This research received no external funding.

Acknowledgments: I would like to thank all of the participants who made the research possible over two long fieldwork periods and numerous visits to the city. I would also like thank the three reviewers who provided constructive comments and helped to refine the argument made in this paper.

Conflicts of Interest: The author declares no conflict of interest.

References

Allen-Collinson, Jacquelyn, and John Hockey. 2011. Feeling the way: Notes toward a haptic phenomenology of distance running and scuba diving. *International Review for the Sociology of Sport* 46: 330–45. [CrossRef]

Allen-Collinson, Jacquelyn, and Helen Owton. 2015. Intense embodiment: Senses of heat in women's running and boxing. *Body & society* 21: 245–68.

Barnfield, Andrew. 2016a. Grasping physical exercise through recreational running and non-representational theory: A case study from Sofia, Bulgaria. *Sociology of Health & Illness* 38: 1121–36.

Barnfield, Andrew. 2016b. Affect and public health–Choreographing atmospheres of movement and participation. *Emotion, Space and Society* 20: 1–9. [CrossRef]

Barnfield, Andrew. 2016c. Public health, physical exercise and non-representational theory—A mixed method study of recreational running in Sofia, Bulgaria. *Critical Public Health* 26: 281–93. [CrossRef]

Barnfield, Andrew. 2018. Autonomous geographies of recreational running in Sofia, Bulgaria. *International Review for the Sociology of Sport* 53: 944–59. [CrossRef]

Barnfield, Andrew. 2019. Orientating to the urban environment to find a time and space to run in Sofia, Bulgaria. *International Review for the Sociology of Sport*, 1012690219826494. [CrossRef]

Barnfield, Andrew, and Anna Plyushteva. 2016. Cycling in the post-socialist city: On travelling by bicycle in Sofia, Bulgaria. *Urban Studies* 53: 1822–35. [CrossRef]

- Benjamin, Walter. 1999. The Arcades Project. Cambridge: Harvard University Press.
- Braun, Virginia, and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3: 77–101. [CrossRef]
- Brown, Katrina M. 2017. The haptic pleasures of ground-feel: The role of textured terrain in motivating regular exercise. *Health & Place* 46: 307–14.
- Burawoy, Michael. 2009. *The Extended Case Method: Four Countries, Four Decades, Four Great Transformations, and One Theoretical Tradition*. Berkeley: Univ. of California Press.
- Cereijo, Luis, Pedro Gullón, Alba Cebrecos, Usama Bilal, Jose Antonio Santacruz, Hannah Badland, and Manuel Franco. 2019. Access to and availability of exercise facilities in Madrid: An equity perspective. *International Journal of Health Geographics* 18: 15. [CrossRef] [PubMed]
- Coen, Stephanie E. 2018. Connecting qualitative research on exercise and environment to public health agendas requires an equity lens. *Health & Place* 53: 264–67.
- Coen, Stephanie E., Mark W. Rosenberg, and Joyce Davidson. 2018. "It's gym, like gym not Jim": Exploring the role of place in the gendering of physical activity. *Social Science & Medicine* 196: 29–36.
- Davidson, Joyce, and Christine Milligan. 2004. Embodying emotion sensing space: Introducing emotional geographies. *Social & Cultural Geography* 5: 523–32.
- Degen, Monica Montserrat, and Gillian Rose. 2012. The sensory experiencing of urban design: The role of walking and perceptual memory. *Urban Studies* 49: 3271–87. [CrossRef]
- Devarajan, Raji, Dorairaj Prabhakaran, and Shifalika Goenka. 2020. Built environment for physical activity—An urban barometer, surveillance, and monitoring. *Obesity Reviews* 21: e12938. [CrossRef]
- Dixon, Deborah P., and Elizabeth R. Straughan. 2010. Geographies of touch/touched by geography. *Geography Compass* 4: 449–59. [CrossRef]
- Ebbensgaard, Casper Laing. 2017. 'I like the sound of falling water, it's calming': Engineering sensory experiences through landscape architecture. *Cultural Geographies* 24: 441–55. [CrossRef]
- Edensor, Tim, and Jonas Larsen. 2018. Rhythmanalysing marathon running: 'A drama of rhythms'. *Environment and Planning A: Economy and Space* 50: 730–46. [CrossRef]
- Eichberg, Henning. 2010. Bodily democracy and development through sport-Towards intercultural recognition. *Physical Culture and Sport. Studies and Research* 49: 53–64. [CrossRef]
- Ettema, Dick. 2016. Runnable Cities: How Does the Running Environment Influence Perceived Attractiveness, Restorativeness, and Running Frequency? *Environment and Behavior* 48: 1127–47. [CrossRef]
- Frank, Lawrence, Mark Bradley, Sarah Kavage, James Chapman, and T. Keith Lawton. 2008. Urban form, travel time, and cost relationships with tour complexity and mode choice. *Transportation* 35: 37–54. [CrossRef]
- Frohlich, Katherine L., and Louise Potvin. 2008. Transcending the known in public health practice: The inequality paradox: The population approach and vulnerable populations. *American Journal of Public Health* 98: 216–21. [CrossRef] [PubMed]
- Giles-Corti, Billie, Anne Vernez-Moudon, Rodrigo Reis, Gavin Turrell, Andrew L. Dannenberg, Hannah Badland, Sarah Foster, Melanie Lowe, James F. Sallis, Mark Stevenson, and et al. 2016. City planning and population health: A global challenge. *The Lancet* 388: 2912–24. [CrossRef]
- Harrison, Paul. 2000. Making sense: Embodiment and the sensibilities of the everyday. *Environment and Planning D: Society and Space* 18: 497–517. [CrossRef]
- Hitchings, Russell, and Alan Latham. 2017. How 'social'is recreational running? Findings from a qualitative study in London and implications for public health promotion. *Health & Place* 46: 337–43.
- Hockey, John, and Jacquelyn Allen Collinson. 2007. Grasping the phenomenology of sporting bodies. *International Review for the Sociology of Sport* 42: 115–31. [CrossRef]
- Ingold, Tim. 2011. Being Alive: Essays on Movement, Knowledge and Description. Abingdon: Taylor & Francis.
- Klinenberg, Eric. 2018. *Palaces for the People: How Social Infrastructure Can Help Fight Inequality, Polarization, and the Decline of Civic Life*. Portland: Broadway Books.
- Komarova, Milena. 2014. Mundane Mobilities in 'Post-Socialist' Sofia: Making Urban Borders Visible. *Etnofoor* 26: 147–72.
- Krenichyn, Kira. 2006. 'The only place to go and be in the city': Women talk about exercise, being outdoors, and the meanings of a large urban park. *Health & Place* 12: 631–43.
- Larsen, Jonas. 2019. 'Running on sandcastles': Energising the rhythmanalyst through non-representational ethnography of a running event. *Mobilities* 14: 561–77. [CrossRef]

Latham, Alan, and Jack Layton. 2019. Social infrastructure and the public life of cities: Studying urban sociality and public spaces. *Geography Compass* 13: e12444. [CrossRef]

Lorimer, Hayden. 2012. Surfaces and slopes. Performance Research 17: 83-86. [CrossRef]

Mailey, Emily L., Jennifer Huberty, Danae Dinkel, and Edward McAuley. 2014. Physical activity barriers and facilitators among working mothers and fathers. *BMC Public Health* 14: 657. [CrossRef] [PubMed]

Manning, Erin. 2013. Always More than One: Individuation's Dance. Duke: Duke University Press.

McCormack, Derek P. 2008. Geographies for moving bodies: Thinking, dancing, spaces. *Geography Compass* 2: 1822–36. [CrossRef]

McCormack, Derek P. 2014. Refrains for Moving Bodies: Experience and Experiment in Affective Spaces. Durham: Duke University Press.

OECD. 2018. Health Statistics—Definitions, Sources and Methods, Perceived Health Status by Socioeconomic Status. Available online: https://stats.oecd.org/FileView2.aspx?IDFile=8a7730a3-44ce-46d0-b736-e8dc255d654d (accessed on 3 November 2017).

Paterson, Mark. 2006. Feel the presence: Technologies of touch and distance. *Environment and Planning D: Society and Space* 24: 691–708. [CrossRef]

Paterson, Mark. 2007. The Senses of Touch: Haptics, Affects and Technologies. New York: Berg.

Qviström, Mattias. 2013. Landscapes with a heartbeat: Tracing a portable landscape for jogging in Sweden (1958–1971). *Environment and Planning A* 45: 312–28. [CrossRef]

Robinson, Jennifer. 2006. Ordinary Cities: Between Modernity and Development. London: Psychology Press.

Rodaway, P. 1994. Sensuous Geographies: Body, Sense and Place. London: Routledge.

Saville, Stephen John. 2008. Playing with fear: Parkour and the mobility of emotion. *Social & Cultural Geography* 9: 891–914.

Sedgewick, Eve. 2002. Touching Feeling. Duke: Duke University Press.

Simmel, Georg. 1971. The Metropolis and Mental Life. In *Georg Simmel on Individuality and Social Forms: Selected Writings*. Chicago: University of Chicago Press, pp. 324–39.

Spinoza, Baruch de. 1996. Ethics. New York: Penguin.

Stevinson, Clare, and Mary Hickson. 2014. Exploring the public health potential of a mass community participation event. *Journal of Public Health* 36: 268–74. [CrossRef]

Throsby, Karen. 2013. 'If I go in like a cranky sea lion, I come out like a smiling dolphin': Marathon swimming and the unexpected pleasures of being a body in water. Feminist Review 103: 5–22. [CrossRef]

Tuan, Yi Fu. 1977. Space and Place: The Perspective of Experience. Minneapolis: University of Minnesota Press.

Williams, Oli, and Kass Gibson. 2018. Exercise as a poisoned elixir: Inactivity, inequality and intervention. *Qualitative Research in Sport, Exercise and Health* 10: 412–28. [CrossRef]



© 2020 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).