Routledge
Taylor & Francis Group

Qualitative Research in Sport, Exercise and Health

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rqrs21

Running blind: the sensory practices of visually impaired runners

Ben Powis & Jessica Louise Macbeth

To cite this article: Ben Powis & Jessica Louise Macbeth (20 Nov 2023): Running blind: the sensory practices of visually impaired runners, Qualitative Research in Sport, Exercise and Health, DOI: 10.1080/2159676X.2023.2284704

To link to this article: https://doi.org/10.1080/2159676X.2023.2284704

Published online: 20 Nov 2023.

QUALITATIVE RESEARCH IN SPORT, EXERCISE AND HEALTH
https://doi.org/10.1080/2159676X.2023.2284704

Routledge
Taylor & Francis Group

Running blind: the sensory practices of visually impaired runners

Ben Powis [a] and Jessica Louise Macbeth [b]

[a]Department of Social Sciences and Nursing, Solent University, Southampton, UK; [b]School of Health, Social Work and Sport, University of Central Lancashire, Preston, UK

ABSTRACT

In this article, we consider what it means to be running blind. As an idiom, this phrase refers to doing something through guesswork, without a plan or pre-existing knowledge; instead, our notion of running blind offers an alternative perspective. Drawing upon a novel theoretical approach, which is multidisciplinary and engages with the work of visually impaired (VI) and non-VI scholars, we establish the rich, creative and diverse sensory practices of VI runners. The data in this article is drawn from a qualitative study involving eight blind and partially sighted participants, who each took part in two semi-structured interviews. Using abductive analysis, our discussion is organised around *the route*: 1) *Knowing the route*; 2) *Navigating the route*; and 3) *Pleasures of the route*. While VI runners' sensory practices are unique, there are significant commonalities in our participants' experiences of running blind, including the mapping process, agency and freedom en route, multisensorial modes of navigation and more-than-visual running pleasures. This article demonstrates the importance of exploring non-ocularnormative conceptions of sport and physical activity, which is of value for VI runners, guide runners and key stakeholders alike.

ARTICLE HISTORY
Received 23 March 2023
Accepted 14 November 2023

KEYWORDS
Blindness; visual impairment; running; the senses; sport; physical activity; disability; perception

Introduction

What does it mean to be *running blind*? Whether it's novelist Desmond Bagley's espionage thriller, the alternate American title of Lee Child's *The Visitor*, or a 2004 single by rock band Godsmack, this idiom is established in popular culture. Yet, a dictionary definition is conspicuously absent. Akin to *flying blind* – 'to be doing something without having any experience of doing it before or without having important information about what you are doing' (Cambridge University Press n.d..) – running blind is an illustration of what David Bolt (2013) terms the metanarrative of blindness. He argues that visually impaired (VI) people are habitually defined in ways which displace agency and perpetuate the supremacy of visual perception. While the semantics of language and terminology may seem inconsequential, the ocularnormative *seeing-knowing* metaphor – and its antithesis – remains the dominant mode of understanding VI people's experiences of being-in-the-world.

While an emerging body of qualitative research has begun to offer important insights into VI people's experiences of running (Alcaraz-Rodríguez et al. 2018; Allen-Collinson, Hall, and Jackman 2023; Ball et al. 2022; Hall, Allen-Collinson, and Jackman 2023; Hiemstra and Rana 2023; Holland, Haegele, and Zhu 2020; Lieberman et al. 2019; Saulynas et al. 2022), these studies do little to challenge the metanarrative of blindness. Existing sociological research focuses exclusively on VI

CONTACT Jessica Louise Macbeth jlmacbeth@uclan.ac.uk School of Health, Social Work and Sport, University of Central Lancashire, Preston PR1 2HE, UK

runner–(human) guide partnerships, providing rich insights into the development of relationships and interactional achievement (Hall, Allen-Collinson, and Jackman 2023), the auditory dimension of running together (Allen-Collinson, Hall, and Jackman 2023) and constructing a sense of inclusion through this running ensemble (Hiemstra and Rana 2023). Notably, this prioritisation of the sporting dyad obscures VI runners' capacity for individual agency and reproduces notions of passivity. Furthermore, these studies tend to present a dualistic running partnership where the guide has sight, and the VI runner does not. Consequently, we know little about how VI runners – even those who use guides – utilise their usable vision when running. Problematic terms such as sighted guide and guided running, which are employed in the current literature, perpetuate an ocular power dynamic that is founded on sighted/blind and in/dependent binaries.

Likewise, the sensory experiences of VI runners (Allen-Collinson, Hall, and Jackman 2023; Hiemstra and Rana 2023) have only been explored in the context of the running partnership. For example, Allen-Collinson et al 2023) sociological-phenomenological analysis of auditory attunement centres on the development of somatic empathy between running partners. Similarly, Hiemstra and Rana (2023) posit how, through a shared sensorium, 'two tethered running bodies become one running ensemble' (12). However, there is little said about the sensory practices of the VI runners themselves or the multisensorial strategies used to construct meaningful outdoor running experiences. Given our critique of this incipient body of research, the purpose of our study is to reframe the concept of running blind and establish the rich, creative and diverse practices of VI runners. While acknowledging the importance of interactions with guides, for those who use them, we will delve into the multiplicities of VI runners' sensory experiences beyond the sporting dyad. We are mindful of not reproducing the mythologies of compensatory powers and supersensory perception (Kleege 1999), which are equally integral to the metanarrative of blindness (Bolt 2013). As we will now demonstrate, running blind does not connote an absence of sight, superhuman compensatory skills or being passively guided around a route: it is a heterogenous, embodied practice that is unique to every VI runner.

Methodology

Positionality

In this study, we adopt a relativist ontological and a social constructionist epistemological position (Sparkes and Smith 2014), which accepts that while material things exist out there independent of ourselves, it is actors who ascribe meaning to such entities and actively construct social realities. We recognise that there is no singular foundational experience of visual impairment (VI) (Sacks 2010): type of impairment, environmental factors and social interaction all impact what it is to be blind or partially sighted, including 'how, what, where, and when they (VI people) see' (Omansky 2011, 154). Blindness and sightedness are continually negotiated and performed in everyday life (Hammer 2019), including in sport and physical activity. Therefore, in the context of our work, multiple realities of VI running exist and are given meaning by the runners themselves. In this article, we are offering our interpretation of these interpretations (Sparkes and Smith 2014) and will explore how our participants produce, construct and make sense of their running realities. While we acknowledge our participants' ways of being-in-the-world and being-in-sport as unique, we also endeavour to establish commonalities in VI runners' sensory experiences and determine the lived meaning(s) of running blind.

Unlike existing VI running research, our theoretical approach – which engages with disability studies, sociology, anthropology and geography – is principally informed by VI scholars (Bolt 2013; Hull 1990; Kleege 1999; Michalko 1999; Omansky 2011; Saerberg 2010), as well as non-VI scholars (Hammer 2019; Schillmeier 2010) with expertise in blindness and the senses. Although VI sport, exercise and health literature – including Bell (2019, 2019), Macpherson (2009a, 2009b), Petty (2021) and Powis (2020) – features in our analysis, it is a sociocultural framing of VI perception that

underpins our perspective. Accordingly, this study is located within the sociology of the senses (Vannini, Waskul, and Gottschalk 2013), which theorises how 'sensing and sense-making are necessarily conjoined, codetermined, and mutually emergent in active and reflexive practices' (15). These practices are often mundane, taken-for-granted and enacted through individuals' somatic work. In our discussion, we further explore the significance of sensory practices in VI running and establish the role of the route in this lived, socialised perceptual process.

We, as authors, currently self-identify as non-disabled and non-visually impaired. Ben is a male outdoor runner with over a decade of experience in coaching and researching VI sport and guiding in non-sporting contexts. Jess is a female outdoor runner, licenced guide runner and has 20 years of experience researching VI sport. Despite not having lived experience of being VI runners, our relational positionality (see Macbeth and Powis 2023a) provided an in-depth knowledge of the field that shaped our research design – including choice of methods and the interview guide – our interactions with participants and our analysis of the data. As we argue elsewhere, an impairment-based insider-outsider binary is flawed and other shared aspects of identity between researcher and participant should not be overlooked (Macbeth and Powis 2023a). This ongoing process of self-reflexivity is central to achieving the criterion of 'sincerity' in Tracy's (2010) conceptualisation of quality qualitative research, a set of criteria which we have adopted for this article.

Participants and recruitment

This study's sample was purposively recruited using social media. Jess created an accessible online participant information page, which we (the authors) and key stakeholders (e.g. British Blind Sport) shared on Twitter. We also used snowball sampling techniques – such as sharing our advert on relevant webpages (e.g. Metro Blind Sport) and community Facebook groups (e.g. RNIB Connect) – to reach a wider audience. Potential participants had to meet the following criteria: 1) be a resident in the United Kingdom (UK), 2) be aged 18 years or older, 3) have a visual impairment, 4) regularly participate in outdoor running. Eight VI participants (aged 31–64, six women and two men) took part in the study. The sample includes people with a range of visual impairments, some of whom use a long cane and/or a guide dog in their everyday lives. All participants are recreational runners who run in a variety of urban and rural environments. Furthermore, while eight of the participants usually run with a guide, four have experience of running independently. Table 1 provides further participant information, including personal descriptions of visual impairment.

Methods

Each participant took part in two semi-structured qualitative interviews. The first interviews occurred between July and October 2020 (ranging from 45 minutes to one hour 15 minutes in length) and the second interviews in April 2021 (ranging from 23 minutes to 40 minutes in length). All interviews were jointly conducted online using Microsoft Teams, recorded with the participants' consent and transcribed verbatim using pseudonyms. Our two-to-one interview strategy (Monforte and Úbeda-Colomer 2021) provided a collaborative space to develop rapport with the participants and allow them to share their stories in a conversational way. Sensory experience featured as a key theme in our interview guide – which was also developed collaboratively – for the first round of interviews with a section of each conversation dedicated to analysing the VI runners' multisensory practices. There were also impromptu sensorial discussions in the second interviews that feature in our analysis. During the interviews, all eight participants demonstrated a high level of sensory articulation (Hammer 2019) when describing their running practices. Akin to the blind female participants in Hammer's 2019 exploration of blindness, gender and the sensory body who 'express a unique verbalization of their awareness of sensory experiences within gender performance' (121), the VI runners' skilful sensory articulation emphasises the centrality of agency in VI perception.

Table 1. Participant information.

Pseudonym	Identifies as	Age	Visual impairment	Years of running and experience	Running preferences
James	Male	37	'. . . my condition is called Ushers syndrome, which actually effects the eyes and the ears. In terms of my visual impairment, I've got RP. . . So, I suffer from night blindness, I have no peripheral vision, I've only got central vision' • Vision affected from ~17 year olds (yo)_ • Degenerative • Outdoor conditions impact vision	• 17–18 years • 1–2 runs per week • Completed a marathon	• Runs independently
Laura	Female	43	'. . . so, I was born blind . . . I've got no sight at all in my right eye, like not even light or dark or anything and in my left eye I've got about, I don't know, probably about 2% vision . . . it's always been the same, so that's fine because I don't know any different' • Uses a long cane	• 3 years • Up to 5 runs per week • Completed parkruns, 10ks, half marathons, marathon	• One main guide but uses others • Holds guide's arm, no tether
Aisha	Female	38	'. . . so, it's a hereditary condition . . . and it is degenerative so it's progressively getting worse. So, it's a lot worse now than when I was a child. Retinitis pigmentosa it is called, a condition is due to the back of the eye'. • Uses a long cane (last 2 years) • Outdoor conditions impact vision	• 6 years • 4–5 runs per week • Completed parkruns, half marathons	• Uses multiple guides • Runs alongside guide, no tether • Wears VI vest/bib • Doesn't run in the dark • Wears peaked cap to run in
Jane	Female	31	'I've now got proliferative diabetic retinopathy . . . had cataract surgery in my right eye, which still gives me a bit of trouble, but my right eye is my better eye. My left eye, I don't really have any usable vision . . . the vision that I do have is patchy so it's a little bit like a jigsaw puzzle and it's got bits missing and also some bits are kind of mixed up, so I've got double vision, 'cause my eyes no longer work together' • Sudden deterioration from ~ 24yo • Surgeries and complications • Degenerative • Guide dog for last 4 years	• Ran prior to sight loss but then didn't run for ~ 4–5 years • VI runner for ~ 2–3 years • 2–3 runs per week • Completed parkruns, 5ks, 10k, half marathons, marathon.	• One main guide but uses others • Uses tether

(*Continued*)

Table 1. (Continued).

Pseudonym	Identifies as	Age	Visual impairment	Years of running and experience	Running preferences
Claire	Female	36	'. . . so totally blind. I've got retinopathy of prematurity, shortened to ROP. Basically, was two and a half months premature and lucky to survive in those days. So, don't have any kind of vision . . . can't see any light' • Uses a long cane	• 12 years • Only runs events, ~2 per week • Completed multiple parkruns, 10ks, half marathons, marathons, trail, and ultra events.	• Multiple guides • Holds guide's arm, no tether
Monica	Female	33	'So, it is from birth and it's optic nerve atrophy in both eyes . . . that's never changed . . . I can see outlines of things, and especially when it's like high contrast, but I could never recognise a person or an object. It's always outlines, always shapes, some colours' • Uses long cane • Recently applied for a guide dog • Outdoor conditions impact vision, especially brightness and darkness	• 6 years • 2–3 runs per week • Completed parkruns, 5ks, 10ks, half marathons.	• Some independent but also uses multiple guides • Uses a tether • Wears 'blind runner's bib'
Simon	Male	64	'. . . I've got nystagmus, a gentle nystagmus, so I've had it since birth. It's generally not a condition which changes, and it certainly hasn't changed for me . . . I've got used to what I can see and what I can't see. My acuity is 6/60, in other words I can only see the top row of the sight chart, but I've got a reasonable field of vision and my vision is quite clear for getting around' • Outdoor conditions impact vision	• 3 years • Weekly parkruns • Completed parkruns, 5ks, 10ks.	• Some independent running • Two main guides but uses others • Runs alongside guides, no tether
Sarah	Female	39	'I'm totally blind . . . Since I was three or four, that sort of age. Before school anyway' • Uses long cane	• Not a runner pre Covid-19 • Began ~June 2020 • 2–3 runs per week • No events, usually runs 5k	• One guide • Uses a tether

Our methodological approach reflects the potential sensoriality of the qualitative interview (Pink, 2015). While her focus is on sensory ethnography, Sarah Pink's (2015, 76) conception of interviews 'as social, sensorial and affective encounters' was instrumental in our asking about the senses. She explains how the interview is an intersubjective process between researcher and participant in which multisensorial experiences are constituted. Although the traditional sit-down interview may be deemed as too detached and disembodied, it can provide participants with a space to frame their experiences. The way in which people interpret and appropriate different sensory modalities and categories is vital in understanding the self (Pink 2015), especially in the context of this study and how participants define vision and the sense of sight. And while mobile methods – which have been successfully employed in running (e.g. Palmer 2016) and VI walking research (e.g. Bell and Bush 2021; Macpherson 2009a, 20009b; Petty 2021) – or sensory elicitation (see Powis's 2019 study with VI cricket players) may have actively or artificially evoked different responses, our semi-structured interview successfully elucidated rich and captivating accounts of sensory experience. Furthermore, due to the concentration required for VI running – whether with a guide or not – run-along methods may disrupt participants' running practices and limit opportunities for in-depth conversations en route.

Analysis

We have analysed our data using an abductive approach. Abductive analysis (Brinkmann 2014; Earl Rinehart 2021; Tavory and Timermans 2014; Timmermans and Tavory 2012) 'specifically aims at generating novel theoretical insights that reframe empirical findings in contrast to existing theories' (Timmermans and Tavory 2012, 174). As Brinkmann (2014) argues, abduction is a third way of thinking about qualitative analysis which is neither data-driven (inductive) nor hypothesis-driven (deductive) but is a form of reasoning to be used in situations of uncertainty, particularly 'when we need an understanding or explanation of something that happens' (722). Because of the limited sensory knowledge of VI running, abductive analysis offered a creative way to continually move between our empirical evidence and a range of theoretical propositions. This strategy was also chosen as it provided the 'rich rigour', 'credibility' and 'resonance' required by Tracy (2010) to enhance the quality of our findings. While there is no standardised protocol for abductive analysis (Timmermans and Tavory 2012), an in-depth familiarity with a variety of existing theories and close attention to methodological design (Tavory and Timermans 2014) are central tenets of abduction. It is a recursive process 'predicated on the researcher's biography as well as on an affinity and familiarity with broader theoretical fields' (Timmermans and Tavory 2012, 173) – which we explored in the positionality sub-section – and requires time for familiarisation and defamiliarisation with the data (Earl Rinehart 2021).

Ben, who conducted the analysis, initially read and re-read each transcript to familiarise himself with the data. He then coded each piece of text that was relevant to sensory experience using sensory specific codes: Seeing; Hearing; Smelling; Touching (Haptic); Multisensory. While the senses do not operate in isolation, it was useful to separately code participants' descriptions of each mode prior to theme development. As Tavory and Timermans, 2014) recommend, Ben drew upon a range of multidisciplinary sensory theory to understand the data in as many ways as possible, including VI-specific approaches (such as Saerberg 2010; Schillmeier 2010) and running scholarship (such as Allen-Collinson and Hockey 2015). This element of abductive analysis allowed us to situate our findings in the context of existing research and identify any anomalies in our participants' sensory practices. Ben's initial analysis and potential theoretical framings were then discussed with Jess, who acted as a critical friend (Sparkes and Smith 2014). In the subsequent reengagement with data and theory (Timmermans and Tavory 2012), Ben identified the theoretical importance of the route in our participants' experiences and across the VI and running literature. Our themes – Knowing the route; Navigating the route; and Pleasures of the route – foreground its significance and form the basis of this article's results and discussion.

Results and discussion

In our conceptualisation of running blind, it is the route that structures our participants' rich sensory experiences. It is also a continual thread in the multi-disciplinary array of visually impaired (VI) and running scholarship that is at our disposal, some of which is central to this article. In fact, the theoretical diversity across these disciplines, including wider sensory and ecological approaches, provides a plethora of directions in which this discussion could go. While enskillment (Rana 2022), running taskscapes (Howe and Morris 2009) and sensory ecologies (Carter et al. 2022) all offer robust frameworks to theorise our runners' being-in-the-world, we use sensory practices to capture this lived, socialised perceptual process.

Running blind requires an interweaving of different temporalities and spatialities: an 'on the move' sensory translation of pasts and futures in the present. And this is why the concept of sensory practice is pertinent. Each runner actively constructs an assemblage of sense-making strategies – which are multisensorial, purposeful and unique – to navigate the movement between memorised and sensed routes. Theoretically, this concept is located in the sociology of the senses and draws upon Schillmeier's 2010 concept of blind practices. He suggests that we turn to the heterogenous practices of blind people to disrupt, question and alter the routines of visual practice. As we will now demonstrate, our participants' ways of running blind provide a challenge to the sighted/blind and in/dependent binaries that underpin this practice.

Knowing the route

For many runners, habitually traversing the same route time and time again is central to the experience of running. More than a series of points on a map, running routes are lived social places made meaningful through repeated cognitive and corporeal interactions with the physical environment (Allen-Collinson and Hockey 2015; Hockey 2006). As Baxter (2021, 141) argues 'the relationship between running and place is two-way. The sites of running shape the meanings of the activity, but runners are also actively engaged in defining the meanings of the sites themselves'. In this context, the running route is a place-event which is sensorially lived, developed and refined over time and unique to each runner. Yet, for visually impaired (VI) runners, the route has additional significance:

> I need to know the route because I need to know if the curb is out of line or pavement sticking up because I can't see it underneath my eyes. So, I'll be scanning to take in that information and store it. I know where tree trunks are starting to come out through the ground and stuff like that . . . I'm always very observant of everything in front of me; trying to map it out, you know. Are there any branches on the floor? Any potholes? People? Dogs? And I just try and map it all in my brain as I run and kind of have it running in my head . . . I could subconsciously tell you where every crack on the pavement is. (James)

Beyond a mere sense of familiarity, James, who is partially sighted and runs without a guide, articulates his intimate, multisensorial knowledge of the route and the structure that it provides during a run. In doing so, he illuminates a key feature of running blind: the embodied mapping process. Although a *cognitive-come-corporeal map* is not unique (Allen 2004), it is VI runners' 'on the move' mobile perception which is unprecedented. Developing such knowledge is an active sense-making process: through complex multisensory interpretation of material environments and social situations, the route is embodied and experienced intuitively. This process typifies what Saerberg (2010) terms as a *blind style of perception*, in which 'blind people create space via their own knowledge, skills, and needs' (378) in ways that disrupt the normalcy of sighted space. For James, learning the cracks and hazards en route allows him to anticipate the terrain outside his visual field and respond to unexpected obstacles. In contrast to previous research, in which VI peoples' spatial agency in built environments – such as the home (Allen 2004), the city centre (Anvik 2009; Saerberg 2010) and the supermarket (Schillmeier 2010) – is often disrupted when encountering movement, VI runners' sensory knowledge is employed in fast-moving and unpredictable environments.

Markedly, even for those who run with a guide, our participants' mapping of the route demonstrates high levels of sensory capital (Hammer 2019). Sarah, who describes herself as totally blind and runs regularly with the same guide, takes responsibility for planning her local running routes:

> I'm in charge of mapping routes around here because I know all the pavements. I know my way around here, so I've built all the routes … At the end of the day, Faith (guide runner) drives most places; I'm the one who runs around here, walks around here and knows, like, where there are more cars on the pavement and stuff.

In this quote, Sarah dismantles the ocularnormative division between the guide and the guided, which is evident in existing VI running research. She makes an important distinction between her *sensorially emplaced* (Petty 2021) knowledge of the local area and her guide's detached perspective: having sight does not equate with having knowledge. It is Sarah's intimate, non-visual conception of the environment that underpins her agency, both in her ownership of the route and the freedom to modify on the run. As she explains, 'I'm quite a bossy person, I guess … I do like that I can say "right, we're going to add a bit extra because we didn't go quite far enough, so I think we'll go this way".' Sarah's experience highlights how VI runners situationally encounter independence and dependence (Hull 1990; Schillmeier 2010). Her independence is route-specific and requires the synchronising of memorised and sensed spaces (Schillmeier 2010) – i.e. Sarah's memories of the route and the 'lived' route in the present. When these perceived spaces are out of sync or the route is altered, her independence is disrupted and dependence on her guide runner increases. Therefore, any attempt to categorise VI runners using an independent/guided binary – or the term 'guided running' – fails to acknowledge how in/dependence in VI running is temporally and spatially contingent.

Our VI runners' experiences of agency and freedom are most apparent on local routes refined over years of everyday sensory interaction, often beginning and ending at the runners' front door. Learning to *know* an unfamiliar route – especially in a space without established landmarks – poses sensory and spatial demands that frequently require the support of a guide runner. However, even in new surroundings, VI runners' independence is still evident. In our study, this is epitomised through Aisha's captivating story of lockdown running. Like all VI runners, the COVID-19 pandemic shaped Aisha's running practices in complex and varied ways (Macbeth and Powis 2023b): crucially, social distancing measures meant she was unable to run with her regular guides. So, she made the twenty-minute walk to her local park, put her long cane and belongings behind a tree and slowly mapped a route, which was initially five kilometres (km) and then extended to eight km. Unlike James and Sarah, who crafted their routes through sensorially emplaced local knowledge, Aisha started from scratch. During our interview, we ask *how* she learnt the route:

> I think just by running there. Like I said, I'd get lost, or I use like certain markers, so if there's a bin or there's a hill or there's a bump or something like that, I'll use those kinds of markers to know. And then there's a certain bit where there's apparently like really loud crickets, but I thought it was some kind of machinery … so then when I hear that I know where I am. Or there's a river, so the River [name] sort of runs along where I run, and so when I get to a certain point, I know where I am in the park. And I know that park like the back of my hand now … I used to say, 'it's all green to me, I don't know where I am'. But actually, there's loads of differences I've picked up now and I have learned.

Akin to VI cricket players who use auditory knowledge to structure a cricket field (Powis 2020), Aisha uses multisensorial markers to endow this open green space with emplaced meaning *and* an identity. Through repetition, including intermittent directions from fellow parkgoers and collisions with bollards, her unstructured runs slowly developed into a structured route that, in her words, became mapped in her head. Aisha's quote also reveals innovative sense-making strategies when navigating the route – which we will discuss further in the next section.

As lockdown restrictions eased, Aisha then asked to her sister to help add an additional three km to her existing route. But they were unsuccessful: Aisha kept on getting lost and eventually replaced her sister's route with something more 'straightforward'. Here, she illustrates what she means by straightforward:

> It just seems like more of a straight line to me. Whereas I had to lookout for loads of different markers with her (sister). I had to make sure I passed a marker so when the floor changed, I had to be on this side of the verge and things like that. And then I had to listen out for the traffic coming from a certain road and stuff outside the park. Whereas where I go now, I don't know if it actually is straight, but for me it just feels like I just go straight.

Fundamentally, Aisha's distinction between the two routes epitomises what is means to be *running blind*. As she argues, 'when people with vision describe things or think of things, it is totally different from a visually impaired person doing it'. Aisha illustrates the orientational differences between blind and sighted styles of perception (Saerberg 2010). Without a mutual and interchangeable standpoint, seemingly self-evident directions – such as straight ahead – hold no useful meaning. Instead of her sister's ocularnormative guidance, it was Aisha's non-visual conception of the route that was of significance. This is not a lesser form of knowledge or an inferior mode of movement: running blind is an alternative sensory practice that disrupts the ocularcentrism of sport and physical activity.

Navigating the route

As we've established, knowing the route is performative, habitual and spatially situated. Crucially, VI runners' cognitive-corporeal maps are also temporal constructions that require multisensorial navigation. For Jane, one of our participants, she describes this process as *tuning in*:

> People say, 'Oh your smell becomes better, your hearing becomes better'. I don't think it does, I just think you tune into it a little bit more. I think it takes a little while to get used to how to tune into it. And there have been times where I've bumped into things and fallen over stumps because I hadn't quite tuned into that yet, but once you kind of settle into it, it just becomes more of a natural thing.

In articulating her sensory attunement (Bell 2019; Ingold 2000; Jackman et al. 2023), Jane refutes the myth of compensatory powers and supersensory perception (Kleege 1999). Instead, she highlights the work required in developing alternative ways of tuning in (Bell 2019) which, like the route itself, become instinctual. Later in our interview, Jane encapsulates what it means to be tuned in:

> I feel it in in my feet. So, from tarmac to gravel, I can feel the difference. Obviously, when it's muddy and it's quite slippy, that's a different sort of smoother slippy kind of sensation. I knew where I was when I was road running with the running club because of the cambers on the driveways, knowing if lamp posts, like if I have to squeeze in, 'oh we're at that lamp post'. Hearing trees along the way, there were woods that we would run past, so I'd hear the trees and smell the leaves and the conkers and things like that. A mixture of, I would say, feeling it with my feet and hearing, smelling, I can tell where we are.

Jane's non-visual navigation of the route raises two key theoretical points. Firstly, like many of the VI runners interviewed, her sensory practices are grounded in what Tim Ingold (2000, 274) terms 'the multimodal feeling-hearing of the blind, which is neither touch, echo nor motion but a blending of all of these'. While sound – including aural instructions from a guide runner – provides fixed (e.g. the sound of a water fountain) and fluid (e.g. a dog's bark) sensory markers, it is the haptic connection to the route's terrain which makes these markers meaningful. This is equivalent to the visual-haptic interactional experiences of non-VI runners (Allen-Collinson and Hockey 2015), although the intermittency of the auditory world (Rodaway 1994) elevates the significance of the haptic for VI runners.

Secondly, touch is best understood as a form of haptic knowledge (Paterson 2009; Rodaway 1994), which also includes kinaesthesia, proprioception and the vestibular system. Our VI runners' haptic practices are wide-ranging and demonstrate that understandings of blind touch must go beyond the hands (Macpherson 2009a). As Jane reveals, her evaluation of the route is through the feet – an element of perception which, as discussed earlier, also underpins the mapping process. For VI people, touch through the feet can result in an 'in the moment' absorption that enables the safe navigation of the terrain and, for those with visual memories, a form of visualisation and distal knowledge (Macpherson 2009a). This runners' 'footwork' (Allen-Collinson and Hockey 2011; Hockey 2006) is integral to VI and non-VI running but takes on additional meaning in the potential absence of visual perception. Equally, the embodied feel of the route provides a sense of orientation, as James

describes: 'this might sound weird, but with the route I was doing, I know the exact sort of mileage, kilometres and sort of the way you feel in terms of how knackered you are. You pretty much know where you are'. By including internally felt senses as part of a wider haptic system (Paterson 2009), we begin to comprehend the diverse ways in which VI runners *feel* the route.

For some of our participants, the route is also usually navigated intercorporeally with a guide. Like above, guide runners provide a mixture of auditory and haptic feedback while en route, often depending upon the VI runners' preferences. This interactional 'togethering' (Hall, Allen-Collinson, and Jackman 2023) is haptically varied because of *how* VI runners choose to run with a guide (e.g. using a tether or *Ramble Tag*,[1] holding the guide's arm, running alongside a guide). For example, Laura rejects the use of a traditional tether:

> I don't know how people do it … because they're quite loose, they're quite slack, you don't get that much feedback. It's like you're just running on your own into the unknown. Whereas when you're holding someone's arm, even if they forget to tell you something like 'left' or 'right' or 'you're going down a step', it doesn't matter 'cause you can feel it anyway.

For Laura, the tether does not provide a close haptic connection or the 'comfort blanket' that one guide in Hall et al'.s (2023, 95) study described. For others, including Jane and Monica, the haptic feedback through a tether is preferable, but more than a comfort blanket. As Hiemstra and Rana (2023, 11) assert, the tether becomes an extension of the body and 'an inherent part of the ensemble that shares a sensorium'. Regardless of how a VI runner chooses to run with a guide, haptic connection is not just about passive reassurance: VI runners are actively and strategically utilising this feedback within their perception.

Finally, while running blind may imply an absence of sight, visual perception is fundamental to many VI runners' sensory practices. In contrast to the non-visual notion of blind practices (Schillmeier 2010) and blind style of perception (Saerberg 2010), our participants employ their useable sight in varied sense-making ways. When asked how she navigates her local park, Monica explains:

> It's actually my sight, believe it or not, because there are some really clear landmarks. So, like, for example, there's two underpasses, there's a playground that has like markings that are quite high contrast. There are quite a few of those gates or bridges that you have to run past either side, so there's quite a few really clear landmarks.

She engages with high contrast landmarks, such as a playground, to orientate herself en route. Contrasts in light are also important, such as movement from light to dark when running through an underpass or along a tree-lined path, which is also identified by Aisha, James and Simon in their interviews. Furthermore, they all highlight how extremes in outdoor conditions, such as glare or low light, can render their sight unusable. Indeed, like the VI walkers in Karis Petty's ethnographic research, our participants' '"seeing", "looking", and "blindness" were intermittent and experienced mutually – even purposefully – in order to see' (2021, 292). Significantly, just like blindness, sightedness is not neutral state, which sighted people often presume, and there are varied ways of seeing (Hammer 2019). When discussing his preference for running alone, James reinforces this point:

> It's alright running with someone, but they need to run with me rather than me run with them, if that makes sense. So, it's kind of like, 'this is what I'm gonna do, do you want to come along?' rather than 'let's go for a run and just tell me if something is coming up' because – and no disrespect to people – it is quite a challenge to understand maybe what someone's not seeing and to be aware of how they might not see it.

The VI runners' heterogenous visual experiences – from Claire and Sarah's 'total' blindness to James' reliance on central vision when scanning the route – challenges us to reconsider assumptions about vision and what constitutes the visual (Petty 2021). In moving beyond a sighted/blind binary, running blind disrupts both the fiction of being fully sighted (Macpherson 2009b) and existing ocularnormative conceptions of runners' vision (Allen-Collinson and Hockey 2015; Smith 2019).

Pleasures of the routes

So far, our exploration of VI runners' sensory practices has focused upon the perceptual routines and strategies that underpin the act of running. In this final section, we are broadening this discussion to illuminate the sensorial pleasures of running blind. Sensory attunement, which Jane described earlier, is not just a practical tool for navigation: it is a way of connecting with emplaced joys of the route (Jackman et al. 2023). This mode of 'tuning in' often requires a shift from achievement-centred pleasures – measured in time and/or distance – to 'the aesthetic, sensate, affectual and subjective feelings of running' (Caudwell 2015, 107). For VI runners, as Jane explains, sight loss or degeneration can also prompt a comparable shift:

> I think when I could see it was probably more about getting round as fast as I could. I don't know, maybe it's just because you don't necessarily appreciate the things that you are seeing until you can't necessarily see them.

This is not to say VI runners do not seek pleasure through achievement – most of our participants run in organised events (see Table 1) and are motivated by success and accomplishment – but that running blind can stimulate a multisensorial reappraisal of what it means to experience the route. Now, Jane actively searches for sensory pleasures when running, like a 'pop of colour' in the flowerbeds, which admittedly, 'may have been an old plastic toy that had been left in the park'. From her perspective, it is the idea of the flower, not necessarily the flower itself, that brings pleasure.

In a non-VI context, the embodied pleasures of running (see Caudwell 2015; Jackman et al. 2023), while presented as multisensory, are often ocularcentric. For example, the pleasures of scenic views, quiet spaces – like the countryside – and the spontaneous exploration of open space all rely upon visual perception. These experiences are also portrayed as an escape from urban and regulated running practices, particularly the parameters of pre-set running routes (Caudwell 2015). However, Laura interprets running pleasures very differently:

> I know some people don't like the traffic sounds, but like I go mad if we run … we did one run once in the countryside and I just couldn't stand it because there's no noise around me. I like that bit of noise because it does orientate you … Also, it just entertains my brain a bit, hearing different sounds because it's not as though you can look at the scenery, you know, like other people can. So, I quite like having a lot of noise around me, yeah.

For Laura, the urban soundscapes provides both pleasure and orientation, whereas the purported pleasures of the countryside, including natural soundscapes, were unsettling. Running pleasures are not universal: what is and is not considered pleasurable is based on ableist, ocularcentric and taken-for-granted assumptions. Equally, we should also question the 'value' placed on different sensory pleasures. Narrow ideologies of the picturesque and the sublime need to be re-thought in a more-than visual way (Bell 2019). In our study, this was most evident in our participants' discussions of running by the sea:

> It felt really freeing. I've always loved running by the sea … It's the fresh air and it's, I don't know, I think people are just a lot happier by the sea. I don't know what it is, but it's just a completely different experience. (Monica)

> You get outside and you can feel like the fresh air on my face. Or the rain, I love the rain. We ran towards the beach, I could listen to the sea, or listen to the swans, or, you know, whatever kind of noises were around. . .And, like, even the different smells outside. When it's raining you get that lovely kind of smell and then you've got the beach smell. (Laura)

More so than any other setting, the auditory, olfactory and haptic pleasures of seaside routes – as Monica and Laura highlight – offer a sensory immersion beyond the visual. Notably, the elements – including the fresh air and the rain – amplified our participants' embodied connection to the route and their experience of the world (Bell, Leyshon, and Phoenix 2019). For Sarah, her thoughts are clear: 'What do I love about running? I love running in the rain'. John Hull (1990, 100) eloquently describes the significance of rain in *Touching the Rock*: 'My body and the rain intermingle, and become one audio-tactile, three-dimensional universe, within which and throughout the whole of

which lies my awareness'. Whether on a dramatic seaside route or a mundane run around the block, the rain can bring pleasure *and* perceptual purpose for VI runners. Often dismissed as a nuisance, this element greatly enhances our participants' sensory practices.

During our interviews, participants also shared routes of sensorial significance. Jane recounted her experience of running at the Eden Project in Cornwall, England:

> You practically run down and then all the way back up the side of the quarry and you do it kind of three or four times, I think. So, it's fairly hilly, but the fact that you run through the landscaped gardens outside, they've got lavender, they've got curry plants, roses, they've got all the herbs. Literally, it is a wall of smell. But at different spots and at different points during the run, you get different smells. And the sound of the grasses, are just, I just love the sound of the grass blowing in the wind. So, sensory wise, that one is just, I mean, it's incredible, absolutely incredible.

As throughout this article, Jane's sensory articulation (Hammer 2019) is captivating and evokes the pleasures of this route. In particular, her running smellscape (see Hockey 2006) – which is a neglected aspect of outdoor running – details the richness of a non-visual conception of the landscape. The olfactory is rarely discussed as route-defining but, here, Jane establishes an alternative viewpoint. Notably, like Laura's experiences of urban running and our discussion of the elements, these multi-sensory pleasures are also practical: each smell and sound are mapped to support her navigation of the route. For VI runners, even pre-set, regular routes are not constrictive and pleasure-inhibiting (Caudwell 2015); instead, they offer a creative and empowering way of bringing meaning to the pleasures of running.

Conclusion

Let's return to our opening question: what does it mean to be *running blind*? While the ocularnormative idiom suggests doing something based on guesswork, without a plan or pre-existing knowledge, our notion of running blind offers a contrasting perspective. For VI runners, knowing, navigating and finding pleasure in the route are active and purposeful endeavours. Their rich, creative and diverse sensory practices, which are unique to each runner, provide the tools for agency and freedom en route – both with and without a guide runner. Unlike existing qualitative studies, in which VI runners' experiences are confined to a partnership, our research reframes *how* VI people participate in sport and physical activity. Markedly, it is our engagement with non-sporting VI scholarship and the sociology of the senses which underpins this article's qualitative significance. Firstly, by foregrounding a sociocultural framing of VI perception, we demonstrate the value of theorising beyond sport. In our abductive analysis, it is the compelling accounts of VI authors and their everyday sensory practices that give our participants' rich experiences most meaning. The 'on the move' sensory translation of past, present and future, which our participants articulate, is a distinctly VI practice that exhibits unique ways of outdoor running. Secondly, in critiquing the sighted/blind and in/dependent binaries that are central to current VI running literature, we posit a fundamental shift in how these concepts should be understood. Rather than neutral, fixed categories, they are temporally, spatially and socially contingent. We encourage academics to question taken-for-granted notions of sight and independence from the outset of any qualitative study, especially in the context of VI sport and physical activity. Finally, as the field of sporting sensuous scholarship grows, our sociological analysis of the senses establishes that there are alternative, non-phenomenological ways of producing rich *lived* qualitative research.

In order to build upon our key findings and continue the valorisation of VI voices, further qualitative innovation is required. While we have established the value of sensorial interviews, future investigations should employ novel approaches to eliciting VI runners' sensory articulations. For example, the development of a VI-accessible run-along method, which captures runners' on-the-move sensory experience, could provide fascinating lived insights. More broadly, a life histories approach to better understand how, when and why VI people are socialised into (and out of) running

is warranted. This work should seek to understand how an individual's biography, including sight condition, family, educational and sporting background, shape VI running experiences. While we acknowledge there are more avenues for future research, what we have proposed here is of significant value to key stakeholders striving to meet the sport and physical activity needs and preferences of VI people. Having demonstrated the importance of listening to and learning from VI runners, we now encourage researchers and practitioners to continue this exploration and further advance our qualitative understanding of what it means to be running blind.

Note

1. Ramble Tag is a lightweight harness which is worn on the upper arm or wrist of a guide and offers a contactless way of guiding.

Acknowledgements

We are grateful to the participants who shared their stories with us. Thank you to Andrew Sparkes, Rob Townsend and P. David Howe for their critical friendship during this article's development.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Ben Powis is a Course Leader in the Department of Social Sciences and Nursing at Solent University, UK. His current research interests lie in the sociology of disability sport, the embodied experiences of visually impaired people in sport and physical activity and investigating the significance of sensorial sporting experiences. He is the author of *Embodiment, Identity and Disability Sport* and co-editor of *Researching Disability Sport: Theory, Method, Practice.*

Jessica Louise Macbeth is a Senior Lecturer in Sport Studies in the School of Health, Social Work and Sport, University of Central Lancashire, UK. Jessica's research focuses on sport and physical activity in the lives of marginalised groups, with a particular interest in the impact of disability and gender. Her main research interest lies in the lived experiences of visually impaired athletes, on which she has published widely.

ORCID

Ben Powis http://orcid.org/0000-0003-4324-5668
Jessica Louise Macbeth http://orcid.org/0000-0002-2564-2267

References

Alcaraz-Rodríguez, V., P. J. Cabballero-Blanco, J. Fernandez-Gavira, and P. Sáenz-Lopez-Buñuel. 2018. "Perception of Visually Impaired Athletes and Trail Running Guides Toward Barriers in the Organization of Competitions." *Journal of Physical Education & Sport* 18 (3): 1248–1255. Art 186. https://doi.org/10.7752/jpes.2018.s3186.

Allen, C. 2004. "Merleau-Ponty's Phenomenology and the Body-In-Space Encounters of Visually Impaired Children." *Environment & Planning D* 22 (5): 719–736. https://doi.org/10.1068/d303t.

Allen-Collinson, J., D. L. Hall, and P. C. Jackman. 2023. "Intercorporeality in Visually Impaired Running-Together: Auditory Attunement and Somatic Empathy." *The Sociological Review* 0 (0): 003802612311634. https://doi.org/10.1177/00380261231163431.

Allen-Collinson, J., and J. Hockey. 2011. "Feeling the Way: Notes Toward a Haptic Phenomenology of Distance Running and Scuba Diving." *International Review for the Sociology of Sport* 46 (3): 330–345. https://doi.org/10.1177/1012690210380577.

Allen-Collinson, J., and J. Hockey. 2015. "From a Certain Point of View: Sensory Phenomenological Envisionings of Running Space and Place." *Journal of Contemporary Ethnography* 44 (1): 63–83. https://doi.org/10.1177/0891241613505866.

Anvik, C. H. 2009. "Embodied Spaces in the Making: Visually Impaired People, Bodies and Surroundings." *Scandinavian Journal of Disability Research* 11 (2): 145–157. https://doi.org/10.1080/15017410902830710.

Ball, L. E., L. J. Lieberman, P. Beach, M. Perreault, and J. Rich. 2022. "Exploring the Experiences of Runners with Visual Impairments and Sighted Guides." *International Journal of Environmental Research and Public Health* 19 (19): 12907. https://doi.org/10.3390/ijerph191912907.

Baxter, N. 2021. *Running, Identity and Meaning: The Pursuit of Distinction Through Sport*. Bingley: Emerald.

Bell, S. 2019. "Sensing Nature: Unravelling Metanarratives of Nature and Blindness." In *Geohumanities and Health*, edited by S. Atkinson and R. Hunt, 85–98. New York City: Springer.

Bell, S. L. 2019. "Experiencing Nature with Sight Impairment: Seeking Freedom from Ableism." *Environment and Planning E: Nature and Space* 2 (2): 304–322. https://doi.org/10.1177/2514848619835720.

Bell, S. L., and T. N. Bush. 2021. "'Never Mind the bullocks': Animating the Go-Along Interview Through Creative Nonfiction." *Mobilities* 16 (3): 306–321. https://doi.org/10.1080/17450101.2020.1817685.

Bell, S. L., C. Leyshon, and C. Phoenix. 2019. "Negotiating Nature's Weather Worlds in the Context of Life with Sight Impairment." *Trans Inst Br Geogr* 44 (2): 270–283. https://doi.org/10.1111/tran.12285.

Bolt, D. 2013. *The Metanarrative of Blindness: A Re-Reading of Twentieth-Century Anglophone Writing*. Ann Arbour, MI: University of Michigan Press.

Brinkmann, S. 2014. "Doing without Data." *Qualitative Inquiry* 20 (6): 720–725. https://doi.org/10.1177/1077800414530254.

Cambridge University Press. n.d. "Definition of Be Flying Blind." https://dictionary.cambridge.org/dictionary/english/be-flying-blind.

Carter, T. F., S. Heath, S. Jacobs, and J. Rana. 2022. "Sensory Ecologies: The Refinement of Movement and the Senses in Sport." *The Senses & Society* 17 (3): 241–251. https://doi.org/10.1080/17458927.2022.2122693.

Caudwell, J. 2015. "Running for Pleasures." In *Sport and the Social Significance of Pleasure*, edited by R. Pringle, R. E. Rinehart, and J. Caudwell, 97–115. New York: Taylor and Francis.

Earl Rinehart, K. 2021. "Abductive Analysis in Qualitative Inquiry." *Qualitative Inquiry* 27 (2): 303–311. https://doi.org/10.1177/1077800420935912.

Hall, D. L., J. Allen-Collinson, and P. C. Jackman. 2023. "'The Agenda is to Have fun': Exploring Experiences of Guided Running in Visually Impaired and Guide Runners." *Qualitative Research in Sport, Exercise & Health* 15 (1): 89–103. https://doi.org/10.1080/2159676X.2022.2092200.

Hammer, G. 2019. *Blindness Through the Looking Glass: The Performance of Blindness, Gender, and the Sensory Body*. Ann Arbor, MI: University of Michigan Press.

Hiemstra, M., and J. Rana. 2023. "Sensing Inclusion Among Visually Impaired and Guide Runners." *International Review for the Sociology of Sport* 0 (0): 101269022311729. https://doi.org/10.1177/10126902231172919.

Hockey, J. 2006. "Sensing the Run: The Senses and Distance Running." *The Senses & Society* 1 (2): 183–201. https://doi.org/10.2752/174589206778055565.

Holland, K., J. A. Haegele, and X. Zhu. 2020. "'My Eyes Have Nothing to Do with How My Legs Move': Individuals with Visual Impairments' Experiences with Learning to Run." *Adapted Physical Activity Quarterly* 37 (3): 253–269. https://doi.org/10.1123/apaq.2019-0098.

Howe, P. D., and C. Morris. 2009. "An Exploration of the Co-Production of Performance Running Bodies and Natures within "Running Taskscapes." *Journal of Sport and Social Issues* 33 (3): 308–330. https://doi.org/10.1177/0193723509340007.

Hull, J. M. 1990. *Touching the Rock: An Experience of Blindness (SPCK Classic 2013 Reprint)*. London: SPCK Publishing.

Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Jackman, P. C., J. Allen-Collinson, N. Ronkainen, and N. E. Brick. 2023. "Feeling Good, Sensory Engagements, and Time Out: Embodied Pleasures of Running." *Qualitative Research in Sport, Exercise & Health* 15 (4): 467–480. https://doi.org/10.1080/2159676X.2022.2150674.

Kleege, G. 1999. *Sight Unseen*. London: Yale University Press.

Lieberman, L. J., P. S. Haibach-Beach, J. Sherwood, and A. Trad. 2019. "'We Now fly': Perspectives of Adults Who are Blind with Guide Dogs Trained for Running." *The British Journal of Visual Impairment* 37 (3): 213–226. https://doi.org/10.1177/0264619619842989.

Macbeth, J.L., and B. Powis. 2023a. "What Are we Doing Here? Confessional Tales of Non-Disabled Researchers in Disability Sport." In *Researching Disability Sport: Theory, Method, Practice*, edited by B. Powis, J. Brighton, and P.D. Howe, 55–69 . London: Routledge. https://doi.org/10.4324/9781003153696.

Macbeth J.L., and B. Powis 2023b. "Navigating a Sighted World: Visually Impaired Runners' experiences of the COVID-19 Pandemic." *Disability & Society*. https://doi.org/10.1080/09687599.2023.2275517.

Macpherson, H. M. 2009a. "Articulating Blind Touch: Thinking Through the Feet." *The Senses & Society* 4 (2): 179–193. https://doi.org/10.2752/174589309x425120.

Macpherson, H. M. 2009b. "The Intercorporeal Emergence of Landscape: Negotiating Sight, Blindness, and Ideas of Landscape in the British Countryside." *Environment and Planning A* 41 (5): 1042–1055. https://doi.org/10.1068/a40365.

Michalko, R. 1999. *The Two-In-One: Walking with Smokie, Walking with Blindness*. Philadelphia, PA: Temple University Press.

Monforte, J., and J. Úbeda-Colomer. 2021. "Tinkering with the Two-To-One Interview: Reflections on the Use of Two Interviewers in Qualitative Constructionist Inquiry." *Methods in Psychology* 5 (100082): 100082–100088. https://doi.org/10.1016/j.metip.2021.100082.

Omansky, B. 2011. *Borderlands of Blindness*. Boulder: Lynne Rienner Publishers.

Palmer, C. 2016. "Research on the Run: Moving Methods and the Charity 'Thon'." *Qualitative Research in Sport, Exercise & Health* 8 (3): 225–236. https://doi.org/10.1080/2159676X.2015.1129641.

Paterson, M. 2009. "Haptic Geographies: Ethnography, Haptic Knowledges and Sensuous Dispositions." *Progress in Human Geography* 33 (6): 766–788. https://doi.org/10.1177/0309132509103155.

Petty, K. J. 2021. "Beyond the Senses: Perception, the Environment, and Vision Impairment." *The Journal of the Royal Anthropological Institute* 27 (2): 285–302. https://doi.org/10.1111/1467-9655.13490.

Pink, S. 2015. *Doing Sensory Ethnography*. 2nd ed. London: Sage.

Powis, B. 2019. "Soundscape Elicitation and Visually Impaired Cricket: Using Auditory Methodology in Sport and Physical Activity Research." *Qualitative Research in Sport, Exercise and Health* 11 (1): 35–45. https://doi.org/10.1080/2159676X.2018.1424648.

Powis, B. 2020. *Embodiment, Identity and Disability Sport: An Ethnography of Elite Visually Impaired Athletes*. London: Routledge.

Rana, J. 2022. "Gendered Enskilment: Becoming Women Through Recreational Running." *The Senses & Society* 17 (3): 290–302. https://doi.org/10.1080/17458927.2022.2094146.

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

Sacks, O. 2010. *The Mind's Eye*. London: Picador.

Saerberg, S. 2010. "'Just Go Straight Ahead' How Blind and Sighted Pedestrians Negotiate Space." *The Senses & Society* 5 (3): 364–381. https://doi.org/10.2752/174589210x12753842356124.

Saulynas, S., M. Vader, A. Bendigen, T. King, A. Nagraj, and R. Kuber. 2022. "How and Why We Run: Investigating the Experiences of Blind and Visually-Impaired Runners." In Proceedings of the 19th International Web for All Conference (W4A '22). Association for Computing Machinery, New York, NY, USA, Article 25, 1–11. https://doi.org/10.1145/3493612.3520445.

Schillmeier, M. 2010. *Rethinking Disability: Bodies, Senses, and Things*. London: Routledge.

Smith, R. 2019. "Visually Available Order, Categorisation Practices, and Perception-In-Action: A Running Commentary." *Visual Studies* 34 (1): 28–40. https://doi.org/10.1080/1472586X.2019.1622445.

Sparkes, A. C., and B. Smith. 2014. *Qualitative Research Methods in Sport, Exercise and Health: From Process to Product*. London: Routledge.

Tavory, I., and S. Timermans. 2014. *Abductive Analysis: Theorizing Qualitative Research*. Chicago, IL: University of Chicago Press.

Timmermans, S., and I. Tavory. 2012. "Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis." *Sociological Theory* 30 (3): 167–186. https://doi.org/10.1177/0735275112457914.

Tracy, S. J. 2010. "Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research." *Qualitative Inquiry* 16 (10): 837–851. https://doi.org/10.1177/1077800410383121.

Vannini, P., D. Waskul, and S. Gottschalk. 2013. *The Senses in Self, Society, and Culture: A Sociology of the Senses*. London: Routledge.