**Title: Grasping Physical Exercise through Recreational Running and Non-Representational Theory - A case study from Sofia, Bulgaria**

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**Abstract**

To become and maintain being physically active encompasses more than purely mindful and rational decision-making. Physical activity requires theoretical- methodological approaches that provide more subtle understandings of the variety of contextual factors. Nettleton and Green have recently argued persuasively for the need for the sociology of public health to embrace social practices. It is also necessary to think about the spaces, affects and technologies of engagement in physical exercise. This article examines the practices of recreational runners in Sofia, the capital of Bulgaria. The article has three aims; (i) to draw attention to the promise of non-representational theory as an additive for health research and the contextual factors of health practices, (ii) to examine recreational runner’s practices and techniques of engagement in light of non-representational theory, and (iii) to highlight how interventions in Sofia and beyond can incorporate elements of non-representational theory into their strategies for improved public health. In drawing attention to the promise of non-representational theory and social practices this article concludes by emphasising their importance for public health interventions in physical activity strategies.

**Introduction: Grasping Physical Activity**

In Europe there has been a decline in levels of physical activity across the continent. This presents two challenges for public health research and practice: how to combat the growing rise of inactivity and think carefully about the most appropriate theoretical-methodological approaches. In order to better come to terms with understanding physical activity there is a need for improving our knowledge of how, why, and in what ways it is conducted (Hagstromer et al 2006). Starting and staying physically active encompasses more than mindful and rational decision-making (McCormack and Schwarnen 2011). Therefore, public health research needs to adopt theoretical-methodological approaches that offer more delicate means of contending with the range of contextual factors (Barnfield 2015). Public health is understood in this paper as institutional attempts that aim to help people maintain health, protect them from threats to health, and research, inform, and provide education on new health hazards.

There are two reasons why the predominate approaches in health research need to embrace more sociologically-minded methods. First, a statistics-based approach continues to lead in much health research (Hitchings 2013). This is understandable given the methodological background of much health research and the primacy of Randomised Controlled Trials. However, statistical analysis can only ever provide a rather anaemic version of everyday life and what this means for physical activity (Heath et al. 2012). The quest for increasingly larger sample sizes works to diminish the connection between researcher and participant. This overlooks the many interwoven pressures, concerns, and fixations that explain practices and actions. Second, and related, less is known about the ways in which the subtleties of engagement influence physical activity participation (Cummins et al 2007). Which is a result of the focus on land use design and planning (Frank et al 2010). This fails to comprehend the complex assemblages of materials, practices of engagement, and cultures of movement that are essential to any form of participation.

This paper examines the physical activity of recreational running - this is running that is for exercise, fitness, and amateur purposes. There are all sorts of things involved in establishing a somatic routine like running. It is a constellation of human and non-human entities that foster different movement cultures (Eichberg 2002). It is developed through an ecology of practice that foreground effort, movement, and the emergence of active bodily skills. By attending to the range of spatial process that are bound up within recreational running this paper explores the emergent sense-making activities that shape practices of physical exercise. A practical engagement with exercise routines enables a more nuanced understanding of the techniques of participation. This works to highlight how health practices are enfolded in the spaces where people live. This isn’t simply proposing a naive environmental determinism. It is a sensitive approach that comprehends space as active and brimming with all sorts of atmospheres, coalescences, and reactions (Massey 2005). Practice theory has provided numerous insights into the complex inter-play between things and people that shapes action. This paper aims to add to practice approaches to health by foregrounding the notion of space within non-representational theory to widen the scope of the ‘social’. By thinking spatially this paper opens up the role of affects, devices, and movement in physical activity. This spatial under-pinning develops a method of intervention that is sensitive to the complexities of moving bodies.

**Health as Social Practices**

In a recent special edition of *Sociology of Health and Illness* on health practices the editors argued that sociologist Pierre Bourdieu and his work on social practices is beneficial to think past health behaviours (Bourdieu 1977). As Cohn (2014: 160) explains, “In contrast to the idea of specific behaviour, everyday practices are always locally situated and composite. They are not the direct result or outcome of mental processes but merge out of actions and interactions of individuals in a specific context”. Therefore, practice overcomes the cognitive threshold and fixity that thinking behaviourally connotes. Nettleton and Green (2014) stress the importance of examining public health regimes as social practices as a way of better understanding how and why behaviours can be transformed.

The work of Bourdieu has certainly helped in this endeavour (Horrocks and Johnson 2014; Veenstra and Burnett 2014). His work proposes an alternative to the objectivist-subjectivist dualism by prioritising through synthesis a dialectal approach that incorporates both mental and social structures (Nettleton and Green 2014). And yet, something is missing from this method of understanding health practices. To begin to approach the complexity and locally specific issues facing people who want to exercise it is necessary to think about the spaces, affects, and technologies of engagement in physical activity. To become and maintain being physically active encompasses more than straight-forward decision-making. This involves grasping the excessive potential of physical activity as a means of attending to practices of exercise and the body across numerous registers (Massumi 2002). It entails paying careful consideration to the constellation of practices, devices, and affects that comprise an exercise routine. And, it means grappling with the complexities and multiplicities inherent within a spatial activity and even with the notion of space itself. This is space as an active participant, rather than as a passive backdrop. Space in the work of Bourdieu is underplayed especially in his conception of habitus. The turn towards social practice inspired by Bourdieu would be complimented by incorporating thinking from non-representational theory. This is a style of inquiry that prioritises the backgrounds, actions, and events of everyday practices.

Therefore, this paper considers physical activity through recreational runners and running clubs in Sofia, Bulgaria and non-representational theory. This paper will do three things: (1) draw attention to the promise of non-representational theory as an additive for health research and the contextual factors of health practices, (2) examine recreational runner’s practices and techniques of engagement in light of non-representational theory, and (3) highlight how interventions in Sofia and beyond can incorporate elements of non-representational theory into their strategies for improved public health.

**The Promise of Non-Representational Theory**

Health geographers and public health researchers have begun to draw on Non-representational theory (NRT) to think through the tangled processes that shape health practices (Andrews 2014; Thrift 1996). A growing group of researchers are developing public health research in more pluralistic ways that aims to challenge the field to adopt a more theoretical-methodological stance. NRT, a loose term, has at its heart a revived interest in ‘materialist, corporeal and performative ontologies’ (Popke 2009: 81). It is an approach that accentuates thinking with moving bodies and the cultivation of different sorts of experiences (McCormack 2013). This entails thinking *with* affect, sensations, and all non-human entities (Rock et al 2014), and the role each plays in framing, facilitating or constraining experience and the associated spatial processes. Affect is the sensations, sense making intensities that shape everyday existence (Manning 2013). They are never personal, despite that they can be felt, registered, and sensed in, by, and through bodies (Massumi 2002). Conradson and Latham (2007, p. 235) comprehend affect ‘at the broadest level – as a consequence of the interactions that occur between the bodies, objects and materials that comprise particular ecologies of place’.

The theoretical lineage of NRT is diverse and stems from work in cultural geography by Nigel Thrift, whose work focussed on agency, subjectivity, time, and space. NRT incorporates a quite staggering range of foundational concepts stretching from a re-reading of Heidegger’s and Merleau-Ponty’s phenomenology to incorporating elements of Spinoza’s ethics and monist philosophy through an engagement with the work of Deleuze, Guattari, and Latour amongst many other philosophers. The diverse intellectual linage of NRT is characterised by a sustained effort to understand the experience of pre-reflective actions. This means attending to actions as they happen in ‘the immediacy of the now’ (Thrift 2003: 2020).

NRT is an attempt to think past the representational ethos of social constructivist thought. This questions the distinction between ontology and epistemology as discrete categories of knowledge (McCormack 2003). NRT research contends this through five broad categories of investigation (Vannini 2014: 7-10). (1) Backgrounds: these are the sites and spaces that have often fallen outside the purview of common awareness and are overlooked by cognitive approaches to social research. (2) Doings: this is the study of practices or performances rather than focussing on the internal status of the mind. (3) Events: this is an engagement with the happenings, unfoldings, and occurrences ‘that are inspired but not overdetermined by states of anticipation and irregular that shatter expectations’. (4) The priority given to relations is based upon approaching life as proceeding from the entanglement of actors and actions. (5) Affective resonances: foregrounding the push of the world, it is embodied but not analogous with the body. Running is important collection of practices to study. It is an exercise practice that involves both organisation and an immersion into the ‘immediacy of the now’ and involves establishing various relations with objects, spaces, and affectual intensities.

**Echoes in Research: Non Representational Theory, Sociology, and Physical Exercise Research[[1]](#footnote-1)**

Research into physical activity and the practices of different exercise routines share many of the broad categories that underpin NRT. This is work that examines corporeal, material, and landscape interactions. In Anthropology, Ingold (2011 – see Nettleton (2015) for an analysis of runners experience of landscape using Ingold) argues that the dualism between land and body misses the vital connection and should be understood as being materially enmeshed with each other. Runners, for example, do not dwell on or through landscape but are active *in* landscape. The expanded sense of touch enables ‘a more grounded’ sense of perception and what it means to be in-the-world (Ingold 2011: 45). This is a world that is experienced as much through the foot and touch as it is by the eye and vision.

Sociologically running and physical activity provide a rich category of knowledge about the body. In writing about fell running Nettleton (2013: 2) develops the notion of existential capital from her studies of practitioners in Northern England. This is an ‘elusive carnal profit’ that is established through embodied practice and the relationship to the landscape. Unlike other forms of capital this cannot be traded outside of the sphere of fell running. Nettleton (2015) also argues that the fell runner’s challenge historical appreciations of the area in which they run as the landscape is not savoured for cognitive notions of beauty. Rather, this picturesque landscape is experienced through corporeal endeavour and as a space of exertion. Correspondingly, Throsby (2013: 8) argues that the practices of becoming a marathon swimmer emphasises a ‘shifted sensorium’ that occurs in forms of physical activity. Participants transcend the dominant narratives of suffering and embrace a sensorium that is developed through kinaesthesia. This is developed through the material experience of water where the body ‘feels at home’ in extreme exertion. While Rees et al (2014) explore group dynamics of professional cyclists through the surveillance of norms and the materiality of clothing and equipment. They argue that practices of symbolic violence as cycling technique organises the hierarchy of the subculture and in-group dynamics.

In terms of health Tulle (2007, 2008a, 2008b, 20008c) has written about running in veteran athletes (who do not run for health benefits but are aware of the positive implications of their running) as presenting a challenge to ontologies of ageing. Tulle suggests that running critiques the notion that ageing is about decay and decline. Rather, through running veteran athletes are able to re-inscribe their bodies and endeavours with an alternative ontological position with a re-configured mind and body. This relationship is about discovering new potentials of movement and experience. However, Katz and Calasanti (2014) provide a critique of the successful ageing paradigm by arguing that evidence from this field is open to issues of social exclusion in terms of gender, economic status, and ethnic background. Recreational leisure activities that involve certain costs, apparel, and playing equipment would reinforce inequalities in wider society rather than opening up a space of participation and health maintenance for people as they age.

Running is more than a palliative to sedentary lifestyles. There is an enjoyment that is established through movement, an enjoyment that is felt through the sensuous moving body. Allen-Collinson (2011) and Allen-Collinson and Hockey (2010; 2013) have explored the sensuous practices of running and the body emphasising the sensory thresholds that are imbricated. They argue that different sporting activities produce specific haptic experiences and competencies. In emphasising a phenomenological approach in accounts of the embodiment of sporting practices they suggest “it is via embodied sporting activity that particular kinds of lived space is produced or created. This lived space then requires certain forms of haptic knowing, often sport-specific, and necessary for skilful practice” (Allen-Collinson and Hockey 2010: 341). It is through such haptic skills that bodies become attuned to the crafts of action, sporting environments, and relations between materials and actors.

**Sofia Study Methods: Running clubs and Runners in Sofia**

This paper is based on research carried out between autumn 2013 and summer 2014 in Sofia, Bulgaria. The study aimed to explore how the citizens engage in and establish physical exercise practices (For a study of cycling in Sofia see Barnfield and Plyushteva 2015. Bulgaria has low participation rates in physical activity and high levels of obesity and overweight adults (Eurostat 2012). As part of my research I studied two recreational running clubs with growing participation rates - the Begach Running Club and the 5km Park-Run Sofia. Begach was established in 2008 and their Sofia Evening Run in October 2013 attracted over 800 participants. The 5km Park-Run has been in operation since 2011 and is a free weekly Saturday run in South Park (Yuzhen Park) in Sofia that attracts over 175 participants.

The research included participant observation of recreational running, an online quantitative survey, and qualitative interviews with running club organisers and participants. The respondents involved in the study were drawn from the two running clubs. The quantitative online survey was sent to members in both the running clubs via their social media pages with 153 responses (62 Women and 91 Men). The use of ethnographic, participant observation, and qualitative interview research methods have been particularly useful in developing a deeper picture of the engagement of runners and their exercise practices (Shipway and Holloway 2013). Interview methodology was combined with survey data and my own experiences to frame questions the participants were able to discuss areas that are often neglected when talking about practices (Hitchings 2012).

The interviews were semi-structured and conducted with fourteen runners of different levels of experience and expertise. The insights from my own experiences of running in Sofia was helpful in recruitment, framing interviews, and analysing participant’s responses. The questions asked in the interviews covered a range of issues. This included runner’s use of urban space, how they constructed their running routines, how they comprehended their running practices, and the technologies they used to participate. Six were female and eight were male, ages ranged from 23 to 46 years old. I also conducted two qualitative interviews with organisers of the respective running clubs, both interviewees were male and aged 33 and 42 years. All participants are Bulgarian. All interview data in this paper has been anonymised.

The participants in the study were from different backgrounds including a teacher, a web-developer, a legal secretary, a financial advisor, and a business analyst. This also included different amounts of educational experience – from high school diplomas to university degrees. The participants had lived in Sofia for different amounts of time. Four had lived in Sofia since childhood. Five had lived in other European countries and one participant had lived in America. The social-economic status (SES) of the group was mixed. None of the group was from the lowest SES group. This is indicative of a group that is more representative of Sofia than Bulgaria more generally.

**Recreational Running, Non-Representational Theory, and Health Practices**

Running for exercise and fitness began in America in the 1960s as a method for improving cardio-vascular health (Latham 2015). It has developed through a boom in the 1980’s via marathons and charity runs. Running creates specific spacetimes. For example, through the development of running tracks, the timing of measured events, through the adoption of specialised equipment, and through the development of specialised centres and fitness programmes (Bale 2004; Qvistrom 2013). Running spacetimes are also about a milieu of activity that can be participated in singularly or as a member of a group. Increasingly, mediated groups discuss their running through GPS records and online platforms. This opens up running milieus and running spacetimes to wider participation and develops new ways of inhabiting space. The focus of this paper will be devices used in running regimes, affective sensations of running, and bodily movement and encounters. These three areas are being discussed in this paper as the runners expressed them as experiences of their running routines. I also experienced them during my own running practices in Sofia. The areas speak to the many sense-making activities that shape practices of physical exercise and are understated by social practice based approaches.

**Affective Resonances: the power of engagement and participation**

Running moves bodies in all sorts of ways. To attend to affect involves tracing these forces as they shape the immanence and transience of space while paying attention to material interconnections (for a discussion of the origins of the affect turn in feminist theory and a critique of affect see Zerilli 2015). Sensations shape sense-making without recourse to breaching a cognitive threshold (McCormack 2008). The work of Spinoza (1994) provides orientation in this regard, arguing that the ability to affect and be affected are characteristic of life and a body, “There is no longer a subject, but only individuating affective states of an anonymous force. The plane is concerned only with movements and rests, with dynamic affective charges: the plane will be perceived with whatever it makes us perceive, and then only bit by bit. Our ways of living, thinking or writing change according to the plane upon which we find ourselves” (in Alliez 2004: 27). Being open to affects and their possibility is a type of knowledge about the world, described by Thrift (2008) as a knowledge nonetheless.

The runners through an array of relations provide insights into the affective nature of running in Sofia. The participants were able to offer evidence of their experiences that ranged across all manner of things. It included the presences of other bodies, from too many people or too few, equally giving rise to particular atmospheres of sensation. This texture of running was discussed by participants through the quality or sensation of comfort. As one participant highlighted crowds of other bodies are important“I don’t like it when it gets crowded many people, many dogs. It’s not so comfortable to run, it scares a bit. It makes me uncomfortable. I like to run the route where I can see a nice view, where there are people who are running also” (Female, 37). This is an interesting way to think of comfort, as being sensed while engaging in physical exertion. It builds on Throsby (2013) as being part of a new kinaesthesia and ‘feeling at home’ being physically active.

The organiser of one the running clubs suggested a communitarian ethos that can be generated through bodies running together, “We have learnt that we need to get the runners to either run a route that 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 short time, that is fun, and with other people” (Male, 42). Running with (or lack thereof) other moving bodies, the conviviality of moving with others, was drawn out in the interviews with runners across skill levels and is an important aspect to think about health practice maintenance. It isn’t simply about other people running but it’s about establishing the meeting and mixing together of bodies of different sorts. The running club organisers have paid attention to how affects can be generated to develop a particular ecology of place. As Conradson and Latham (2007) argue this is developed through the interactions that arise when bodies, objects, and materials are brought together.

Affective sensation was also discussed by the participants through a more grounded bodily experience. A number of the participants expressed how feeling the quality of the surface as they ran or the experience of running in ‘polluted’ air led to specific experiences. As a participant explained “I tried running in the roads but it’s quite dirty and dangerous. I prefer to run somewhere where I don’t have to breathe that air, the cars are packed all over the pavements, and the pavements are not good for my knees. In the park I stay on the grass, it is a better feeling for my body” (Female, 32). An additional aspect was the light. This again is an interesting aspect to exercise practices, being the capacity of light to shape the sensual experience of exercise space. The way light is used to create different affects has been discussed by Edensor (2015) in relation to artists and light exhibitions. The way light is experienced by runners in urban space as atmospheres of affect is demonstrative of the need to unpack the social in practices. The agency that light has and the way these illuminated affects frame physical activity requires more research. As a participant who was new to running commented, “The parks are close but are near busy roads. The parks are ok, nice, I would prefer some lighting. It doesn’t feel good to run in the dark. This is something that could be done much better in the spring, autumn, and winter it is dark after 5pm” (Male, 27).

The participants exercise routines brought them into contact with a variety of spaces. The runner’s practices are attuned to experiences of the affective atmospheres they encountered. As one interviewee explained the reason she ran outside was it felt better to her. More than merely for any issues regarding running on a treadmill and possible joint stiffness or boredom, it was the sensation of moving through space, “I rarely do any gym work especially not running inside, I’d rather be outside. I run for recreation, for fun. I would run more in my neighbourhood if there was a specific group there, to join with and go with. I like to run where there is grass, it feels better for me” (Female 38). This chimes with Allen-Collinson (2011: 290) who argues her “body as part of the elemental world is a fundamental component of my running experience”.

Thinking about affect and how sensations help to shape experiences highlights that spaces of exercise are chosen due to numerous and often taken for granted issues. The runners in Sofia explained that all sorts of things such as boredom of the route, air quality, dogs, and loneliness were active parts of the affective landscape of their running spaces. Affects are positive and negative. The runners spoke of many instances when they entered a specific part of their routine or route where they experienced an intensity of sensation but equally their routines were shaped by more mundane affects like boredom.As the participants have explained, affect occurs across multiple registers and gives rise to different experiences of space. Ciddell (2014) explains that running in cities presents a form of transgressive mobility, whereby amateur road races (charity marathons etc.) enable people to temporarily transgress against accepted forms of (vehicular) mobility in urban spaces. The sensations of running is also a means of escape, getting away from daily challenges of work or city life and reconnecting to a more holistic comprehension of corporeality. Lorimer (2012) argues that running acts as connecting the body with sensations of the physical landscape and the landscape of memory that is written through and on the body, creating a space of contemplation through physical exercise.

Recreational running has the potential for creating other concepts or other worlds. Markula (2014) has explained how practices of physical fitness that are removed from the individuality of neo-liberal ideals have the potential to unsettle bio-political regimes that nudge people to have primary care for their own health responsibility. In such a context individuals have to adopt self-responsibility as their own voluntary choice. Fitness practices and apparatus are positioned within this neoliberal approach, participating in a larger project that aims to make the individual citizen solely responsible for their health and improved productivity. Recreational running offers a counter point. In a similar way to Markula who does this in relation to Pilates by focussing on the actual movement practices. In thinking about developing a knowledge of the body, how it works, moves, and feels, Markula suggests this establishes ways of thinking about health and fitness other to the production of a better looking and illness-free body.This emphasises four key points: improved movement ability as the main exercise outcome, working to one’s own rhythm, encouraging participants to feel the needs of their own bodies, and using touch to guide movement. Markula (p. 486) concludes that such an approach demonstrates “how an exercise form can be problematized and then used in an attempt to change the current field of fitness”. Thinking with affect is demonstrative of an alternative to neoliberal governance and the privatisation of personal health responsibility. This is achieved by appreciating the ecologies of place and practice that comprise exercise routines and urban space. Foregrounding the power to affect other bodies and be affected by them. Focussing not on the visual outcome or perceived health benefits but the corporeal sensations, movements, and affects that running promotes.

**Bodies: movement and exercise spacetimes**

Running in cities is a physical activity that can be performed in a number of ways either as a solitary or sociable practice. Routes and routines can be manipulated to fit all types of spaces. Running in cities also speaks to contemporary trends of drawing attention to illness and charity through mass running events and active participation. The construction of ‘charitable bodies’ describes the connections between running, charity, and performance spectacles (Nettleton and Hardey 2006). This speaks to the ways running and bodies create specific exercise spacetimes. However, we do not know what these spacetimes can do. What potential is in these running spacetimes that can make exercise more appealing, cities more convivial spaces, and cohabiting with diverse others in urban space an ethical disposition (McCormack 2013). The awareness of movement that Markula (2014) explores is an attentiveness that occurs across multiple registers. It speaks to the development of a set of practices that are attuned to the runner’s body,as a participant explained, “I run by feeling. If it is a good I run more. When I am running in Sofia I try to think of my legs and my body as I run. Is this stride too long or too short, how is my body positioned, and is there any sensation or pain” (Male, 37). This is a typology of knowledge that places bodily technique and movement at its centre.

The cultivation of running spacetimes involves establishing knowledge of different types of distances, routes, and terrains. To establish spacetimes that invoke the experimental nature of exercise requires trying new things and exploration through movement and corporeal experience. In several of the interviews the runners talked about how through running they have opened a dialogue with their body and their exercise routines. Drawing together a variety of skills that enable them to perform in certain ways. For example an experienced runner explained, “I have to listen to my body. At the moment I am doing interval running and there are two types which are sequential. First, the speed runs of shorter distances. Second, tempo runs for longer distances. I also do strength running and relaxed running. It is difficult to run slowly, it is more of a mental challenge. I have different types of runs and use different parks” (Male, 40). In a similar vain to Tulle’s (2007) work with veteran athletes, the runners in Sofia through their practices are listening to their body, feeling the way it moves, and experiencing their mind-body relationship as inter-connected. The runners are working towards contesting the notion of ageing as decay by focussing on movement rather than locating their efforts in terms of physical appearance.

The participants shared a concern over alternating to do different sports to avoid injury or damage to their bodies. In discussing their exercise regimes the participants touched on the notion of paying attention to different types of regimes and continued effort, for example one runner explained their different activities, “I do yoga do strengthen my body and make it flexible, I also do bike as well to help my legs and keep strong. I do this for running and to help my body as I age. I occasionally do gym work; running inside, I’d rather be outside. I run for recreation, for fun” (Female, 38). Another runner explained that they do different types of exercises for muscles or endurance, and the benefits for strength of movement. “I do a few other types of exercise, I started to do hiking first before running. I do gym workout to maintain muscle and cycling to work coordination and physical workout” (Male, 29). In explaining different activities, the runners are expressing how they explore their corporeality through movement. In this way the runners are expressing their body capital akin to Nettleton’s (2013) findings from fell runners. They didn’t do extra exercises or thought about their body for an end product of an idealised body image. The runners were maximising their enjoyment by keeping their body in a state to be active and experience movement. This was a form of body capital that was not traded but rather deepened their engagement with running, other runners, and club activities. Through perceiving their body and thinking about moving helped to develop an immersive involvement that is generative of connections with other bodies, devices, and spaces. The runners develop the constellation of their practices which brings them into contact with a wide range of material arrangements.

**Devices: networks of human and non-human actors**

The consideration of social practices draws out the influence of devices. Materiality in health research needs to be more inclusive towards non-human actors. This means examining how, in what ways, and with what meaning devices are used (I use the term devices to articulate a technical artefact that is entangled with human bodies shaping different forms of experience and different spacetimes). The opening up of materiality will in turn lead the politics of public health to new possibilities of practice and ethics (Braun and Whatmore 2010; Schatzki 2010). In the interviews and running I observed, the devices that were used were integral to exercise routines and ultimately health. In following devices, which are inseparable from subjects, the role of non-human entities in the production of recreational running and other physical exercise routines is made visible (McCormack 1999). All these things are drawn together to shape the physical, cultural, and imagined environment which influences practices of movement.

The role of devices in our world presents many theoretical questions. An argument this paper develops is that in taking a more inclusive position on ‘the social’, an awareness of the power of devices along with affects and movement is rendered essential to understanding health practices. It is a proposition that gives equal weight to the role and power of devices to work in networks of action. Instead of as mere cladding to human endeavour. Thrift (2008: 13) suggests a subtle approach, which comprehends the world and human body as “two turbulences enmeshed with each other”. This moves away from approaching the human as a relatively fixed and consistent subject confronting a potentially predictable world. Devices modulate ways of thinking. They are incorporated into regimes of thinking and experience. The range of devices is almost endless when it comes to running, including but not limited to: running trainers, watches, GPS devices, Heart Rate Monitors, MP3 music players, and specialist types of clothing. These devices are not simple adornments. They are an everyday method of sense-making that shapes understanding about the world in which humans are embroiled (Critchley 2005). This draws attention to how the human body acts and is acted upon with devices like running application technology or music through an MP3 player that modifies the experience of recreational running (McCormack 2013).

A piece of technology that the runners discussed was heart rate monitors (HRM). A HRM is a device that measures beats per minute of the heart and is used to denote exercise performance and physical effort. It is used as a technique of engagement within a specific milieu of practice and as an active element of the exercising body. The quotes below work through how a device aids the structuring of bodily movement, exertion, and the making of exercise spacetimes. The runners suggest that HRM shapes and modulates the knowledge of a fit and active body. They are able to comprehend their adoption and use of HRM in different ways. For one runner the HRM is about progress, “I started very amateur, causal outfit and running shoes. I buy myself a pulse meter [Heart rate monitor]. So I can use my phone app to check progress. And the pulse meter I use to check my heart rate. I need it to be in the correct borders. I watch it all the time as I am running” (Male, 28). For another the HRM is part of a suite of measures that help to guide them, “I have a running app and a heart monitor. I have had it for a few years. I log my distance, weekly mileage. Actually day by day. The same with my times. I also say where and what surface, incline. All by GPS. I have used a heart monitor since the beginning” (Female, 37). The HRMs are used to garner extra information about how a running session had gone or what heart rate range a particular session needed to stay between. Incorporating certain procedures and competences, one participant stated, “I started to run a few months ago with a heart rate monitor, I feel much better now because when I see the HRM number this is a pretty good indicator of how much effort I have put in my running. I believe this way I can stay much healthier based on my pulse because if I know it, I know how hard I run” (Male, 27).

The materials involved also extended further than heart monitors. As one interviewee explained, a distance chart was used in combination with different exercise practices, “I tried to make at first a km per week chart. It was very strong; soon I had 100km in ten days. I try for 5-8kms a few days a week. I rock climb and some gym. To strengthen my body through being active” (Male, 33). Recreational runners do not just use devices to think about their movement. Rather, through repeated effort runners learn how to feel their body and movement. This focus on movement enables the immersive involvement that is generative of connections with other bodies and practices discussed previously, as an experienced runner commented, “I am very methodical. I read about running and how the body operates. When I am running I am thinking of certain things. How I should be stepping, where is my weight positioned etc. I am very conscious of my body. I try to run in this particular way, examine my body as running” (Male, 40).The runner’s use of devices and their participation in a network of actors demonstrates how they understand their activity through these interactions. The runners learn to feel their body though running applications or equipment. They express the interactions that occur between their bodies, devices, and movement that comprise particular ecologies of practice, space, and health. It is these ecologies that are essential to understand to improve knowledge of where, when, and how practices of physical activity are established. Non-representational theory aligned with social practice approaches hold promise for these endeavours.

**Discussion: Interventions in Sofia**

Recreational runners in Sofia are faced with many challenges to participate. This includes the quality and provision of facilities, surfaces and routes, air pollution, and volume of traffic. Improving physical exercise participation rates is a complex proposition. The two clubs that formed part of this research were passionate about the potential for running not only for health, but also for the kinds of social interactions, urban spaces, and positive feelings of community that running can generate. This was a key understanding that was shared by organisers and regular runners. In their efforts to re-imagine a way of cohabiting the city with diverse others they felt running held enormous potential. The running clubs are providing information, guidance, and enthusiasm for running and fitness. In doing so they provide a fertile setting for people to engage in exercise and experience the city. The work of the two clubs was important on two levels. First, in terms of everyday actions the events and types of runs that the clubs organised and promoted have made running a visible and regular activity (see Goodman et al 2014 for similar findings in cycling and bike hire schemes). To go running through the streets or to participate in an organised event with many others are being taken as signs of contemporary life in the city. Second, on a more fundamental level the running clubs are working to fill a space that the reduction of the state has created. This is in areas of health prevention and public health education programmes.

This research project on running in Sofia highlights a number of topics that would be useful when thinking about interventions to increase physical activity in cities. They can be generalised across many different places but this discussion will focus on issues specific to Sofia. The challenges to increase activity levels and the associated health benefits in Sofia are related to the withdrawal and under-funding of public health provision, as well as the material complexion of the urban fabric. However, the interviews with runners and club organisers revealed a number of things that local authorities could do that would help them and other people wanting to exercise.

First, in order to encourage citizens the local authorities (in Sofia, the Mayor’s Office and Municipal authorities) could help with the organisation of small scale city runs similar to the free 5km Park-Run Sofia. This support can take a number of forms, helping with advertising of the events, allowing the park runs free access to the park, space to store any equipment, and liaising with local businesses to print the runners barcodes (used to time runners) for free. The benefits of showing that running takes little time and can be organised in one of the four main parks in Sofia promotes the idea that getting or staying active isn’t a difficult choice. The numerous public transport systems (Metro, Bus, Trolley bus, and Tram) mean that most citizens are likely to have access to the city. The short distance and conviviality of these types of events would draw more people into taking part especially if they occur in popular, visible spaces. This would help with the clubs efforts to normalise running in Sofia.

Second, the infrastructure for running is a mixture of good facilities in some parks and poor facilities in most neighbourhoods. Infrastructure for running could be improved at little expense. For example, different lengths of routes to be added (in bright colours) to pavements in parks and along tracks to help people who want to run shorter or longer distances, and routes in the city could be marked out to help people wanting to run to or from their place of work. Much like cycle paths, these running paths could be added to footpaths and marked on streets or maps to indicate safe routes for runners and encourage openness towards active bodies. Just as the current runners have developed a series of dispositions towards running and healthy lifestyle behaviours, these approaches could help ingrain a series of dispositions in citizens of Sofia towards being physically active. This would help to reinforce the idea of running as a safe, public, and everyday activity.

**Conclusion: Running in Cities**

Social practices have challenged the idea of stable health behaviours (Cohn 2014). This in turn has highlighted the potential for examining public health regimes as social practices as a way of better understanding the ways behaviours can be transformed (Nettleton and Green 2014). This has been a welcome addition to health research and stresses the importance of looking past RCT’s and statistical models of action. However, this approach can be developed to encompass the influence of space, movement, and devices to offer a more sensitive understanding of the contextual factors that influence physical activity (Barnfield 2015). Non-representational theory has revived an interest in materialist, corporeal, and performative ontologies that would be beneficial to social practices and help to reveal action in the immediacy of the now (Thrift 2003). By challenging the dichotomy of ontology and epistemology NRT contests perceptions of the social by being attentive to the emergent nature of the world. This is an emergence that is resultant from a range of spatial processes that are not reliant on breaching a threshold of thoughtful cognition (McCormack 2003). In unpacking the social in light of a NRT standpoint, a more sensitive picture of the backgrounds, devices, and events of everyday practices can be developed.

Further, this research project also emphasises the potential of affect and affect amplification in health interventions. Health practitioners and all who design interventions need to be interested in how spaces and the performativities of space are enacted through the interplay of moving bodies, devices, and landscapes. Affect can be amplified and it is through thinking through ecologies of place and practice that ethical and more sensitive ideas can be developed (Manning 2013). The amplification of affect is a more-than-representational task that draws together people, movement, devices, and spaces into generative atmospheres of affective potential. It speaks to the ways interventions need to re-focus from individual level changes and work towards social, political, and cultural changes. To improve participation in physical activity practitioners need focus on system level changes and appreciate the complexity involved. It is time to move on from individuals and to grasp the where, when, and how of physical activity.

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