

The smell of sunshine: Smellwalks and the Re-Conceptualisation of smell

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Abstract

This paper explores the experience of trialling smellwalks during the pandemic for use in educational contexts. It details how these walks were designed and mobilised in a small coastal town in Aotearoa-New Zealand to explore how the pandemic transformed life at a daily and local level. The paper has two aims which entail a theoretical examination of smellwalk methodology. Firstly, to rethink a multisensory conceptualisation of smell where human senses are understood as distinct but overlapping. And secondly, to theorise the act of smelling as unbounded and involving non-humans. A series of research moments are examined to demonstrate how smelling involves a multisensory experience that emerges with/through the material landscape. Barad's (2007) notion of intra-action is drawn upon to re-conceptualise the idea of smell as led by the nose and reconfigure it as an indeterminate bodily experience.

Keywords

Smellwalks; Sensory methodology; Multisensory; Intra-action; Barad; COVID-19 pandemic

Introduction

Ordinarily, I am an educational researcher who studies young people, sexualities and schooling. When the pandemic hit in 2020 however, the research I had planned in schools involving group smellwalks with students, was made impossible due to lockdown restrictions. Disappointed at not being able to trial this experimental method, and feeling confined at home under lockdown regulations, I decided to engage in a modified version of the method I had planned. As schools were closed, the research site became my neighbourhood, a small coastal town which I call

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'Bayside' on the Eastern side of the North Island of Aotearoa-New Zealand. In a bid to escape the sensory monotony of home, I set out on smellwalks on my own, undertaking what smell researcher Kate McLean (2018) characterises as a 'smellfie'. While I had hoped to employ smellwalks to explore the sexual smellscape of schooling, this focus was no longer tenable and a new research purpose had to be found. Overwhelmed by daily televised updates about the pandemic dominated by statistics of new infections and deaths, I used smellwalks to understand the pandemic differently. My aim was to document the embodied experience of living through a pandemic by attuning to changes in the smellscape of my neighbourhood.

This paper is an exploration of the development of smellwalks as a method for educational research. In this regard, the paper has two aims. Firstly, to rethink a multisensory conceptualisation of smelling as involving human senses that are distinct but overlapping. Smellwalks involve researchers reorienting their understanding of the world so the nose becomes the primary source of information (Leemans et al., 2023). While smell is foregrounded during this method, it is recognised that 'sensory experiences are produced, enacted and perceived in combination with each other...' (Hsu, 2008, p. 440). This means that while researchers are concentrating on the information received from their nose, vision, sound and touch are seen to shape this experience (Henshaw, 2014; Leemans et al., 2023; McLean, 2019). This paper proposes a reconceptualisation of how this multisensoriality is currently conceptualised in terms of our senses being understood as distinct entities which interrelate. Current conceptualisations that recognise the multisensory nature of walking while privileging smell can depict the act of smelling in the following way,

... if we smell something, it registers in our body as intensity—*affect*—and then as sensation. When this sensation crosses over into perception, we then organize the smell according to memories, past experiences with a similar smell, or associations we have with the scent. (Springgay, 2011, p. 637)

Within such a conceptualisation aromas are understood as separate from the body until inhaled as contained in the phrase, 'if we smell something, it registers in our body as intensity-affect-and then a sensation...'. There is then a linear progression where the sensation of smell crosses over into perception to be organised by our minds via past memories and experiences. Rather than suggesting that bodies and aromas are distinct entities which interrelate, this paper mobilises Barad's (2007) agential realist concept of intra-action to suggest sensory experience is more indeterminate and unbounded. As explained below, this means shifting away from descriptions of smell which draw on bio-medical explanations of this process and that imply it has a particular physiology centred around the nose.

The second aim of this paper is to contribute to a theorisation of the act of smelling as unbounded in terms of being a practice that extends beyond the human body to the material world. Subsequently, the paper has implications for what it means to engage in smelling as a researcher and how a researcher's relationship to the material world is conceptualised. An intra-active theorisation of smelling allows for the possibility that how we smell has a different ontological

premise than previously thought, where natural landscape features are integrally and actively involved in this practice. It is argued that such indeterminacy of sensation opens up new possibilities for experiencing the world sensorially, whereby it might be possible for instance, to 'smell the sunshine'.

This reconceptualisation has potential implications for not only how we understand the act of smelling in smellwalks but for how other sensory research might be conceptualised. To explore this provocation, the paper traces the experience of conducting smellwalks during the pandemic to demonstrate how the human senses were indistinguishable in my experience of smelling during research. This is not a conceptualisation where the senses are seen to work together to enhance information received through receptors in the nose. Rather, this is a more radical assertion that the sight and feel of sunlight enabled me to smell. To offer this idea I draw on moments during smellwalks where other senses are unwittingly present during moments where I think I am simply smelling. My contention is that these senses (sight, sound, hapticality¹) do not shape my ability to smell, but rather are the mediums by which smell manifests.

The theoretical focus of this paper means that findings around what smell reveals in relation to the experience of living through the pandemic are peripheral to discussion. Readers interested in these insights can find comprehensive accounts in (Allen, 2022 -a, 2022 -b). Instead, the paper begins by outlining the theoretical premise of intra-action and its implications for thinking about how the act of smelling might be re-conceptualised. Next, the process of smellwalks is described to provide details of this method for researchers who may wish to employ it within educational contexts. Then, moments in which other senses such as sight, sound and hapticality were inaugurated in the process of smelling are explored. These moments provide examples of how the act of smelling occurred through other senses and non-human material phenomena (Barad, 2007), and how this experience might be theorised intra-actively. The final section considers the implications of re-conceptualising smell intra-actively for smellwalks and what this means for researchers conducting this mode of research.

How might multiple senses intra-act?

Within western thinking it is commonly understood that we have 5 senses that help us navigate the world and that these comprise sight, hearing, touch, smell and taste (Bull, Gilroy, Howes, & Kahn, 2006). There are many cultures however who do not subscribe to this taxonomy and understand the senses in a wider and more complex repertoire (Majid, 2020). How we understand how we sense, is dominated by bio-medical conceptualisations of this process where the preceptors associated with each of the senses sends information to the brain, to assist in making meaning from the surrounding world (Gottfried, 2006). While in our everyday experience each sense may appear to operate independently, it is generally accepted the senses collaborate to produce perception. For instance, during speech perception, our brain integrates information from our ears and eyes (around lip movement and/or facial expression) to interpret speech. In this version of understanding sensory perception, distinct senses are seen to interact with each other, while our brains amalgamate this information to apprehend meaning in our environment.

In the field of sensory methods this understanding of perception is translated empirically when researchers prioritise a particular sense such as vision or sound, to understand a specific phenomenon. In the method of sound walking (Schafer, 1977) for instance, participants are invited to intentionally and actively listen to auditory stimuli as they walk through soundscapes such as local markets, neighbourhoods or cities, to map the sonic ecologies of space (Westerkamp, 1974). While auditory cues predominate in such studies, it is recognised that sight and hapticality play a part in auditory experience. For instance, the sound of a church bell is intensified when simultaneously standing in front of the imposing cathedral in which it hangs. In this moment, the sight, sound and feeling of bell sound waves as they reverberate through the body is experienced. This conceptualisation conveys the idea of separate senses (vision, hearing, hapticality) combining to transmit sensory information to our brain which then makes meaning from them. In such a depiction, each of our senses are understood as discrete yet overlapping phenomena which produce the sensory experience of hearing the tolling bell.

To explain the experience of being able to ‘smell the sunshine’, this paper mobilises Barad’s (2007) relational ontology of the world to suggest that smelling is an intra-active phenomena. Drawing from quantum physics, Barad (2007) proposes there are no bounded entities that exist in, and move through time and space, before they are measured. This means that neither our senses nor the stimuli which activate them are considered discrete entities which interact to produce perception. When smell perception is seen to interact with visual perception these senses are understood as existing prior to each other, before coming together as olfactory experience. Barad’s (2007) notion of intra-action however suggests there are no prior and bounded entities, but instead all phenomena (including smell) come into being in the moment of their intra-action. This theorisation ruptures the idea our senses are distinct but interrelated experiences and suggests instead they operate in a way that is much more indistinguishable and subsequently indeterminately located in the body. Within this framework, senses like smell, sound and touch have an indeterminacy to how they are experienced, so that the act of smelling can not be described as simply felt or performed through the nose. Instead, smelling is a whole-body experience that is indistinguishably sensed intra-actively with/in the world. The moments explored below illustrate this indeterminate experience during smellwalks around Bayside.

The idea of multiple senses intra-acting draws attention to the non-conscious, non-cognitive, and more-than-representational processes of sensory experience (Springgay & Truman, 2019). More-than-representational refers here to those experiences which cannot be easily expressed as they are not captured by discourse and are often felt and experienced in inexplicable ways. The experience of ‘smelling the sunshine’ is one such example. It articulates something that is more-than-human because in a relational ontology humans come into being with/in the material world (Barad, 2003). To smell then, involves taking into account non-human elements of our surroundings which intra-actively eventuate this experience. Here, the more-than-human is conceived as an agentic presence that intra-actively shapes human life (Barad, 2003). This is not the idea that ‘things’ possess a power which they exert over humans, but rather in the process of intra-acting, possibilities for their agency materialise (Barad, 2007). As will be demonstrated below, this necessitates acknowledging the presence and involvement of material features of

Bayside such as buses and cars as well its natural landscape of grass, sunshine, trees and shade that bring the experience of smelling intra-actively into being. It also means questioning conventional understandings of 'human experience' where bounded bodies contain a sovereign self that can be differentiated from the non-human material world. Within an agential realist framework, the act of smelling becomes an undifferentiated entanglement of human-non-human phenomena which eventuates experiences that are currently unarticulatable. However, as I argue through the moments below, these experiences can be felt. To smell within this conceptualisation draws attention to those dimensions of olfaction that are not governed by the mind and maybe non-conscious and more-than-representational (Springgay & Truman, 2019). Such a conceptual framing also hints at the possibility of as yet untapped ways of sensing with/in the world.

The way in which the body is conceptualised in an intra-active account of smelling differs from a conventional understanding of this process. To elucidate this idea, I use the example of smelling smoke from a bush-fire (Roberts, Rasmussen, Allen, & Williamson, 2023). In a conventional understanding of this olfactory experience, the acrid odour of smoke, its grey/black appearance in the air and stinging sensation in the eyes and throat are thought to be absorbed via the corporeality of our nose, eyes and skin to be perceptually processed. These visual, haptic and olfactory stimuli are conceived as external to the borders of the human body which is understood as a bounded and separate entity from the smoke itself. Within an intra-active account of sensory experience, bodies are porous, open and an 'apparatus for sensorial reframing of becomings' (Malone & Fullaga, 2022, p. 145). As such, our bodies sense the world at the same time as they make it and the body's own materiality comes intra-actively into being. This makes human bodies indistinct from sensorial stimuli so that these bodies, the acrid aroma of smoke, its black appearance and stinging sensation are all materially made in the moment of our sensing them. This indeterminacy of pre-existing things and conceptualisation of the body, has implications for understanding the nose as a primary corporeal site in the perception of odours. If ontologically, the human body is made in the moment of olfactory experience, then all of its senses are inextricably implicated in the act of smelling. In such an intra-active account, it is possible to see the nose does not dominate because it comes into being at the same moment as all of our other senses and subsequently does not lead in this experience. It is perhaps only dominant in bio-medical and cultural discourses which lend us to believe this is an act that occurs through the nose. Within an agential realist account (Barad, 2007) however, the act of smelling can potentially occur through other senses such as sight and sound which lends a sensory indistinguishability to how an odour is apprehended. These ideas reconfigure our understanding of what it means to smell and the conceptualisation of multisensory experience. They suggest sensory experience is not about the overlapping nature of the senses, but the impossibility of their differentiation. The moments examined below illustrate and explore this notion of undifferentiated sensory experience.

Smellwalks as method

To design smellwalks I drew predominately on the work of smell researchers Victoria Henshaw (2014) and Kate McLean (2018). When I began this research in 2020 smellwalking was a relatively

unknown method within the social sciences and had not previously been undertaken in educational contexts (Sliwa & Riach, 2012). Subsequently, it was necessary to draw on and adapt the work of scholars located in other fields such as urban design and planning (Henshaw) and media, art and design (McLean). Within their respective fields, Henshaw (2014) and McLean (2018) have employed smellwalks to document smells present in locations like towns and cities to capture and map the smellscape (i.e. the olfactory equivalent of a landscape) (Porteous, 1985). While interested in documenting the presence of smells in my hometown, my primary objective was to investigate the question of what changes in smell signalled about the disruption to everyday life caused by the pandemic? Smell seemed an especially apt data collection method given the airborne nature of the COVID-19 virus and fact one of its early symptoms was anosmia, or loss of smell (Jarvis, 2021).

The development of smellwalks was also underpinned by Todd's (2011) philosophical work around 'sensuous education' and the idea that the felt and 'experienced aspects of life are recognised as important for thinking and learning' (Todd, 2011 p.79). In my bid to make sense of what was happening to everyday life during the pandemic, I wondered if a sensuous methodology might help me know this experience differently. While scientised responses to the pandemic led by government advisors and public health authorities were meant to reassure the population (Green & Moran, 2021) I found them inadequate for capturing the felt and embodied experience of living through a pandemic. What I needed was a method which shifted attention to the felt and embodied in a way that produced alternative meanings. Smellwalks involve attunement to sensory information in an environment, by temporarily concentrating on information received from the nose while walking in a geographical location (McLean, 2018). During this exercise, smell perception '...operates differently...than in normal everyday experiences of odour' (Henshaw, 2014 p.43) because we refocus our awareness away from vision to collect and identify different smells. Writing about this practice, McLean (2018) explains that 'to walk and sniff is to know, in an unexpectedly fine and detailed way' (p.509). As a sensuous method, smellwalks enable an embodied knowing about the world where smells give 'a push to thought' (Vannini, 2015). In employing them, I hoped their sensory and embodied character might engender new learning about living through this period of crisis.

Smellwalks can take various forms, such as the 'group walks' which I had originally planned with students. These would have entailed students leading me around school to periodically stop, smell, record and discuss the smells we encountered. Another smaller scale version of this walk is the 'buddy walk' where a person familiar with the smellscape guides the researcher around it (McLean, 2019; Perkins and McLean, 2020). Lockdown restrictions prohibited contact with people beyond your residence and prevented travel that was not deemed essential e.g. for food or medical treatment. My only option then was 'a smellfie' or 'solo walk' where the researcher gathers and records aromas on their own. To familiarise myself with the method I decided to undertake a pilot walk. For convenience, I integrated this pilot into my household's daily 'covid-walk' undertaken to break the monotony of being at home and to get some exercise. Our dog dictated the pilot route taking us to places where she most likes to sniff including the nearby creek (for the aroma of water rats) and park where other dogs engage in scent-marking. This pilot

enabled me to become confident using pre-installed and downloaded apps on my mobile phone as data collection tools (described next).

To discern changes in Bayside's smellscape, in addition to the pilot I conducted 6 more smellwalks, 3 during lockdown and 3 at times when lockdown regulations had eased. As Perkins and McLean (2020) observe, 'weather conditions strongly influence smellscapes' so for instance, extremely windy weather can make it difficult to smell anything (p.167). Given this, it is advised to conduct smellwalks at different times of day and on different days of the week, although as I have noted elsewhere (Moran & Dooly, in press) this was not always feasible due to the challenges of working from home while simultaneously trying to run a household. During the first 2 lockdown walks I engaged in a process of 'smell catching' (McLean, 2019) which is a passive form of smelling that, 'involves walking slowly through an area focusing on smell as the primary sense, breathing in deeply, and attending to the aromas that are encountered' (Perkins and McLean, 2020 p.167). This technique enabled me to become familiar with habitual scents present during lockdown before engaging in later walks outside it, where I employed a more active form of smelling known as 'smell hunting'. 'Smell hunting' involved deliberating seeking out smells encountered during lockdown, such as the smell of clay and tree foliage, to see if they were still present, or had changed.

To assist in capturing and documenting smells, my mobile phone became a key piece of research equipment. Before commencing each walk, I used the Voice Memos app to record the date, time and weather conditions. I then downloaded a walking app called 'Mapmywalk' developed by Under Armour for the health and fitness industry to record the trajectory of the walking route, its length and duration. As nasal attention wanes after 45 minutes (Perkins & McLean, 2020) most of the walks lasted 40-60 minutes. For each walk, I followed a similar route through my neighbourhood stopping every time I encountered a smell. Taking repeated breaths, I would try to identify the aroma and then use the Voice Memos app to create a 'smellnote'. The point of this note was to document and describe the smell and consider what it might reveal about living through a pandemic. To record the source of the smell, or at least where it occurred if this was not discernible, I took a photo using my phone's camera of the vicinity in which it was encountered. Upon returning home, I would immediately transcribe the smellnotes and placed them alongside the matching photos in a PowerPoint presentation that displayed the sequence of smell events (Porteous, 1985). The power point's aggregation of multisensory data which captured smell, sound and visual images not only helped answer my research question but drew attention to the act of smelling as something that did not just occur through my nose.

Moments of multisensoriality

Each moment explored next provides an example of how the act of smelling occurred through other senses. Incidences where multisensory experience surfaced were frequent across all smellnotes. These occurrences proliferated despite the fact I had set out to explicitly focus on and capture the presence of smells and was deliberately giving attention to smell over other senses. In the following smellnote what initially caught my attention was the smell of exhaust fumes, however this is not the only sense I remark on.

I'm coming onto the main road now and I can smell the cars much more prominently than when I was in my own street [Bayside Crescent]. You can hear them in the background. Yeah, it smells like exhaust fumes. The air is really cold today (Smellwalk 3, during lockdown, audio entry 4).

While it was the car exhaust fumes I stopped to document, it appears I cannot reference them without also mentioning the noise of cars (sound), the feel of the cold air (hapticality) and although I don't verbally record this, I remember seeing a blue car racing down the main road (vision). The following is another example where descriptions of smell are interspersed with other senses, such as the sound of a bus and vision as I seek out the source of a smoky aroma.

I'm heading up the high-street now. You can hear the sound of the traffic is getting much louder. I'm going up the side of the street that's got the optometrist and podiatry shop on it, heading towards the bus stop and I can smell the exhaust fumes from the bus [loud sniffing sound] I can also smell smoke. I'm coming past the liquor centre, I can't see the source of the smoke. No, I can't seem to see it. I can definitely smell it. It smells like cigarettes. Now I'm coming past the bus, listen to the bus [loud pneumatic 'tss' noise]. The smell of the bus always reminds me of [laugh] catching the bus to secondary school. [Smellwalk 2, during lockdown, audio entry 7]

While conducting these walks I was only peripherally aware of the way other senses were inaugurated in the act of smelling. When listening to the audio-recordings and transcribing the smellnotes however, I realised my descriptions of smell were rarely offered without mention of other senses. Analysis of the smellnotes made apparent that references to 'sound', 'vision' and 'hapticality' were recurrent themes in my descriptions. Part of this realisation can be attributed to the use of audio-recordings which foreground sound in the absence of other senses. These recordings captured and emphasised sounds centring my attention on them and enabling me to acknowledge just how indistinguishable the sound of cars was from the smell of exhaust fumes. This multisensory experience is evident when wedged between my descriptions of smell above, is also an attunement to sound, 'I can smell the cars much more prominently than when I was in my own street [Bayside Crescent]. You can hear them in the background. Yeah, it smells like exhaust fumes'. While recording the smellnote I only vaguely remember discerning the sound of the cars. However, in analysing my descriptions of odours it is clear that during the act of smelling, sound and a feeling of coldness are simultaneously brought into being. So too are non-human elements of this experience such as the presence of cars and a bus that emits a loud pneumatic 'tss' noise during the same moment I apprehend the smell of exhaust fumes.

The fact that smellwalks involve walking offers one explanation for their multisensory nature. It is well documented that walking '...put[s] us in touch with the materiality of our surroundings in its visual, olfactory, tactile and sonic dimensions' (Vannini, Waskul, & Gottschalk, 2011, p. 69). The stop-start nature of smellwalks also has a role to play here, in that as Malone and Fullaga (2022, p.

146) observe, 'The more we linger, the more coherent the sensorial relations become, and hence the more wholly enmeshed in our bodies we become'. Stopping to smell is a form of lingering which expands our sense of self-awareness of the immediate environment that can invite attunement to other sensory registers (Springgay & Truman, 2019). Smellwalking also forces us to change pace from the usual velocity of movement when walking. Slowing walking speed to catch smells can engender an intricate texture to sensory experience by increasing awareness of the physical environment and intensifying other dimensions such as sound and hapticality. While I am a smell researcher who wants to raise the profile of smell as a valuable means of knowing the world, within conventional smellwalks privileging smell is impossible as this practice is never inaugurated alone.

Another example of the way in which the act of smelling occurs through other senses happens as I pass someone on the street walking their dog.

So a lady has just passed me with her dog [as I'm walking up Bayside Crescent] and ah one thing that I could smell was not the dog, but sort of like a human smell of breath really and oxygen uhm and it made me think, gosh neither of us had a mask on, I can see how COVID spreads so quickly if we can be like, we were probably more than 2 metres apart from each other and I could still smell, uhm her. I'm sure she could smell me too. (Smellwalk 3, during lockdown, audio-entry 3)

In this example, smell draws my attention to hapticality in relation to my physical proximity to the person with the dog. Researchers writing about the pandemic have documented how being able to smell others triggered anxiety and fear around contracting the virus because it signalled potential for infection (Thorpe, Brice, & Clark, 2021). Being able to smell the breath of the dog walker eventuates with/in the presence of non-human phenomena like dogs, oxygen, space and my awareness of my own positionality (hapticality) in a context of concern over virus transmission.

The final moment exemplifies how I experienced olfaction not just as a phenomenon that occurs through the nose, but as an embodied sensation that was more indeterminate. This moment occurred as I left the beach and shade of the large Pohutukawa trees that line it, to return home. Crossing the road towards a sun-lit grassed reserve I undertake the following smellnote, *oh I've just got a whiff of cut grass, I can see across the road from here, they have cut the grass today and so you can really smell the cut grass [noise of engine as car wooshes past] you will be able to hear the traffic coming past me (Smellwalk 3, during lockdown, smellnote 18)*. As I make my way across the reserve towards the council contractor packing away mowing equipment, I record the following smellnote,

Now, I don't think I've ever thought about this before, but I think it is possible to smell the sunshine and I say that because, I'm walking through shady and then sunny spots, and it's been winter in New Zealand, so it's been pretty wet and cold and miserable. And so, when you find one of these glorious sunny spots, it sort of feels dry and warm and yeah as if I can smell the sun which is quite lovely, it feels

like there is a promise of spring in the air. I think we need some spring, this has been a rather depressing winter with all the lockdowns and COVID situation (Smellwalk 3, during lockdown, smellnote 19).

Some might argue the sun does not smell, at least not to humans because it is made up of primarily hydrogen and helium which we experience as odourless. The sun can make things smell by warming them so they release odour, but on its own it is primarily felt, not smelt. This perspective maintains that olfaction occurs through the nose and that sensorial stimuli such as the sun, grass and trees are external to human bodies. It also suggests that the senses are separate but interrelated corporeal experiences that aggregate to produce a false sensation of smelling the sunshine. Subsequently, my claim to smell the sunshine is not smelling the sunshine at all, but a fantastical feeling produced by multiple separate senses such as sight, hapticality and smell of non-sun related matter working together. Some might even label this experience a form of synaesthesia, or condition in which someone experiences things through their senses in an unusual way (Simner, 2019) such as experiencing colour as a sound. However, it is my contention that this experience is not a 'condition', nor is it something that is necessarily exceptional, but perhaps an untapped way of sensing the world potentially possible for everyone.

Via an agential realist understanding of this phenomenon, my perception of being able to 'smell the sunshine' is made possible by numerous features of the material environment intra-acting to eventuate this experience. Non-human elements of the landscape such as the shade from the Pohutukawa trees which contrast with the bright sunshine of the reserve, the smell and sight of freshly mown grass and the feeling of dry warm sunshine on my face intra-actively produce this sense of olfaction. The ontological indeterminacy of these phenomena mean I am unable to discern where exactly the smell of sunshine emanates, the sun itself, the grass, my enjoyment of a reprieve from the pandemic during a walk. It also means I am unable to distinguish how I am smelling the sunshine as an embodied experience because this sensation appears to be connected to more than my nose. The perception of the sunshine's smell becomes the entanglement of all these human-non-human intra-acting phenomena which engenders an indeterminate sensation of olfaction. Subsequently, smelling the sunshine is the undifferentiated feeling of the sight of warm sunshine and smell and vision of mown grass. There is also an element of this experience which is directly related to the pandemic and referenced when I note *it feels like there is a promise of spring in the air. I think we need some spring, this has been a rather depressing winter with all the lockdowns and COVID situation.* The unprecedented experience of lockdowns is an inextricable presence in this sensation. In thinking about how multiple senses intra-act in unexpected ways, Malone and Fullaga (2022, p. 146) note that 'the multiplicity of sensing relations open up the possibilities for affective intensities which seemed previously impossible' – which in this instance was the ability to smell the sunshine.

Implications for developing smellwalks as an educational research method

Undertaking these smellwalks confirmed Todd's (2011) claim that the felt and 'experienced aspects of life are...important for thinking and learning' (Todd, 2011 p.79). As detailed elsewhere, smellwalks around Bayside were a useful means of consolidating this insight and trialling this method for future use in schools. The 'sensuous education' (Todd, 2011) smellwalks provided allowed for an alternative means of understanding the pandemic distinct from dominating government and media representations. Via attention to smell it was possible to see the transformative affects of this crisis on life at a local and everyday level (Allen, 2022 -b). Bayside's smellscape during lockdowns for instance, was characterised by what I configure elsewhere as the (ab)scents of aromas that normally infuse its landscape (Allen, 2022 -a). Some of these smells included coffee, baking bread and cooking aromas of meat and garlic from restaurants on the town's main street. Similarly, the empty smell of Bayside mall, usually bustling with people meeting friends or shopping, signalled radical changes to commerce and social activity caused by the shuttering of businesses. As these habitual smells receded, new smells like hand sanitiser and disinfectant used to clean public areas surfaced with greater intensity. In contrast to the sweeping statistical reports offered by the media, smellwalks captured the intricate local and embodied texture of everyday life during this time, a facility that is transferrable to other contexts such as schools.

The theoretical contribution this paper seeks to offer methodological knowledge about smellwalks is its re-conceptualisation of their multisensory nature. In transcribing and analysing the audio-recordings it was apparent that although I set out to document smell, my descriptions invariably cited other senses. Drawing on the notion of intra-action to explore the moments above, it was apparent that while focusing on smell other senses such as sound, vision and hapticality were modes by which smell manifested. This phenomenon became apparent partly as a consequence of the walking component within the method which has previously been noted to intensify attention to the visual, tactile and sonic dimensions of our environment (Vannini et al., 2011, p. 69).

This paper attempts to conceptualise this multisensory nature of walking differently from conventional understandings where multiple senses interrelate. Drawing on Barad's (2007) agential realist perspective, it is argued that smelling can be seen as an intra-active phenomena. Within this account, the experience of smelling becomes more sensorily indeterminate and not locatable in part(s) of the body - but perceptible through all senses at once. As such, hapticality, vision and sound become modes by which researchers smell. This is possible because within an intra-active framing of smelling sensory experience is indeterminate, as all senses and in this case sound, vision, hapticality come into being in the same moment. This ontological reconfiguration of olfaction renders smelling as indistinguishably sensed through the entire body.

This insight has parallels with how Ceraso (2018) describes the way deaf solo percussionist and composer Dame Evelyn Glennie experiences sound. For Glennie who is profoundly deaf, listening is an attunement to the 'living sensation' of sound' (Ceraso, 2018, p. 108) and a practice located in the entire body, that can be touched, felt and seen. This idea is expressed when Glennie describes sound as a physical encounter that involves '...a kind of wind; you almost feel as if your hair is

actually moving and you're almost being sort of kicked back and forth with the force of the sound' (Ceraso, 2018 p.107). Smelling the sunshine is similarly enabled via a feeling of warmth on the skin, bright light, shade, trees and the sight and smell of mown grass.

A final contribution this paper endeavours to make is around the unboundedness of the act of smelling. Applying the concept of intra-action means recognising this practice as coming into being with non-human elements of the world in the same moment as the act of smelling itself. This eventuality was described in the examples above via the presence of the natural landscape, light and shade, cars and buses which inaugurated the sense of being able to smell the sunshine. Such a reconceptualisation has implications for what it means to engage in the act of smelling as a researcher and how we pay attention to this experience and document it. Understanding smell as an indeterminate bodily experience implies researchers need to attend to smell in a much more multisensorial way. It might suggest for instance, that we don't just focus on inhaling aromas but we also notice what we are seeing, hearing, feeling that brings that smell into being. An agential realist understanding of smell opens up dimensions of sensory experience that are not governed by the nose or mind, nor are necessarily articulable. In this paper I have argued such a dimension of sensory experience is the ability to smell the sunshine. It is an account which I hope gestures to new possibilities for sensorially experiencing the world as educational researchers.

References

- Allen, L. (2022 -a). (Ab)scent Aromas: Mapping the Smell Texture of the COVID-19 Pandemic. *Multimodality & Society*, 0(0). <https://doi.org/10.1177/26349795221146734>
- Allen, L. (2022 -b). What does lockdown smell like? Understanding the COVID-19 pandemic through smell. *The Senses and Society*. <https://doi.org/10.1080/17458927.2022.2138089>
- Barad, K. (2003). Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs: Journal of Women in Culture and Society*, 28(3), 801-831. <https://doi.org/10.1086/345321>
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Durham, NC: Duke University Press. <https://doi.org/10.2307/j.ctv12101zq>
- Bull, M., Gilroy, P., Howes, D., & Kahn, D. (2006). Introducing Sensory Studies. *The Senses and Society*, 1(1), 5-7. <https://doi.org/10.2752/174589206778055655>
- Ceraso, S. (2018). *Sounding Composition: Multimodal Pedagogies for Embodied Listening*. Pittsburgh: University of Pittsburgh Press. <https://doi.org/10.2307/j.ctv4pqh6h>
- Gottfried, J. (2006). Smell: central nervous processing. *Taste and Smell*, 63, 44-69. <https://doi.org/10.1159/000093750>
- Green, L., & Moran, L. (2021). Covid-19, social distancing and the 'scientisation' of touch: Exploring the changing social and emotional contexts of touch and their implications in social work. *Qualitative Social Work*, 20(1-2), 171-178. <https://doi.org/10.1177/1473325020973321>

- Henshaw, V. (2014). *Urban Smellscapes: Understanding and designing city smell environments*. New York: Routledge. <https://doi.org/10.4324/9780203072776>
- Hsu, E. (2008). The Senses and the Social: An Introduction. *Ethnos*, 73(4), 433-443. <https://doi.org/10.1080/00141840802563907>
- Jarvis, B. (2021). 'The Forgotten Sense': What can the coronavirus's strangest symptom teach us about the mysteries of smell? In G. Zackman (Ed.), *The Daily*.
- Leemans, I., Tullet, W., Verbeek, C., Ehrich, S. C., McLean, K., Bembibre, C., & Michel, V.-A. (2023). Knowing by Sensing: How to Teach the History of Smell. *The American Historical Review*, 128(3), 1251–1264. <https://doi.org/10.1093/ahr/rhad359>
- Majid, A. (2020). Human Olfaction at the Intersection of Language, Culture and Biology. *Trends in Cognitive Sciences*, 25(2), 111-123. <https://doi.org/10.1016/j.tics.2020.11.005>
- Malone, K., & Fullaga, S. (2022). Sensorial. In K. Murriss (Ed.), *A Glossary for doing post-qualitative, new materialist and critical posthumanist research across disciplines*. (pp. 145-146). Abingdon: Routledge. <https://doi.org/10.4324/9781003041153-72>
- McLean, K. (2018). Mapping the invisible and ephemeral. In A. J. Kent & P. Vujakovic (Eds.), *The Routledge Handbook of Mapping and Cartography* (Vol. 509-515). London: Routledge. <https://doi.org/10.4324/9781315736822-43>
- McLean, K. (2019). *Nose First: Practices of Smellwalking and Smellscape Mapping*. (PhD), London.
- Moran, L., & Dooly, Z. (Eds.). (in press). *Stories of the Pandemic*. London: Springer.
- Perkins, C., & McLean, K. (2020). Smell walking and mapping. In H. Holmes & S. M. Hall (Eds.), *Mundane Methods: Innovative ways to research the everyday* (pp. 156-174). Manchester: Manchester University Press. <https://doi.org/10.7765/9781526152732.00017>
- Porteous, D. (1985). Smellscape. *Progress in Physical Geography*, 9(3), 356-378. <https://doi.org/10.1177/030913338500900303>
- Roberts, C., Rasmussen, M. L., Allen, L., & Williamson, R. (2023). *Reproduction, Kin and Climate Crisis: Making Bushfire Bagies*. Bristol: Bristol University Press. <https://doi.org/10.1332/policypress/9781529226843.001.0001>
- Schafer, M. (1977). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.
- Simner, J. (2019). *Synaesthesia*, Vol 608. USA: Oxford University Press.
- Sliwa, M., & Riach, K. (2012). Making Scents of Transitions: Smellscapes and the Everyday in 'Old' and 'New' Urban Poland. *UrbanStudies*, 49(1), 23-41. <https://doi.org/10.1177/0042098011399596>
- Springgay, S. (2011). The Chinatown Foray as sensational pedagogy. *Curriculum Inquiry*, 41(5), 636-656. <https://doi.org/10.1111/j.1467-873X.2011.00565.x>
- Springgay, S., & Truman, S. (2019). *Walking Methodologies in a More-than-Human World: WalkingLab*. Abingdon: Routledge.

- Thorpe, H., Brice, J., & Clark, M. (2021). Physical activity and bodily boundaries in times of pandemic. In D. Lupton & K. Willis (Eds.), *The Covid-19 Crisis: Social Perspectives*. (pp. 39-52). London: Routledge. <https://doi.org/10.4324/9781003111344-6>
- Todd, S. (2011). Going to the Heart of the Matter. *Studies in the Philosophy of Education*, 30, 79-84. <https://doi.org/10.1007/s11217-011-9252-9>
- Vannini, P. (2015). *Non-Representational Methodologies: Re-Envisioning Research*. London: Taylor and Francis. <https://doi.org/10.4324/9781315883540>
- Vannini, P., Waskul, D., & Gottschalk, S. (2011). *The Senses in Self, Society and Culture: A Sociology of the Senses*. New York: Routledge.
- Westerkamp, H. (1974). Soundwalking. *Sound Heritage*, 3(4), 18-27.

¹ I choose the term hapticality over touch here because I am employing it the manner conceptualised by Springgay and Truman (2019) within their walking research. In this context hapticality relates to the sense of touch and also attends to an awareness of the position of the body in space (Springgay & Truman, 2019). Within walking research, hapticality refers to tactile qualities such as pressure, weight, temperature and texture as well as things felt on the surface of the skin (Springgay & Truman, 2019).