



Education, Contact and the Vitality of Touch: Membranes, Morphologies, Movements

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Abstract

This paper explores how touch is key to understanding education—not as an achievement or an instrument of acquisition, but as a process through which one becomes a subject capable of both living and leading a life that matters for ourselves and others. As a process, it is concerned with how we encounter things and others in the world and not solely with what we encounter. In particular, it argues that the dynamics of touch-as both a touching and being touched by—are central for understanding educational encounters as sensory landscapes of contact. This paper turns first to Aristotle’s understanding of touch as central to life itself in order to contemplate how it is not merely one of the senses but signifies as the primary mode of all bodily contact with the world. This vital aspect will then be examined in relation to the specific ways bodies experience contact, through their membranes, morphological make up and their movements. Here, I draw on a number of philosophers and theorists, such as Maxine Sheets-Johnstone, Juhani Pallasmaa and Erin Manning, and a recent art installation *The Boarding School* by Sisters Hope to demonstrate how bodies matter to the very practices of education. I conclude with some thoughts on what morphologies, membranes and movements can specifically offer to a sensuous understanding of education.

Keywords Touch · Senses · Becoming · Sisters Hope · Maxine Sheets-Johnstone · Juhani Pallasmaa · Erin Manning

Introduction

The taste of the apple... lies in the contact of the fruit with the palate, not in the fruit itself; in a similar way... poetry lies in the meeting of poem and reader, not in the lines of symbols printed on the pages of a book. What is essential is the aesthetic act, the thrill, the almost physical emotion that comes with each reading.

Jorge Luis Borges

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Sisters Academy is a school in a world and society where the sensuous and poetic mode of being is at the center of all action and interaction—A school for the exploration of sensuous learning in a Sensuous Society.

Sisters Hope, art collective

Contact, vitality, touch. Strange words to the reigning orthodoxies of results-driven practices in education, where the language of productivity, league tables and managerialism seems to consist in a world that has little to do with the pulsing, fleshy, breathing bodies that make up any practice in the first place. Indeed, these orthodoxies have seemingly forgotten how educational *practices* can never be wholly ‘cognitive’ but are dependent upon the everyday ways we move, perceive and live in, through, and with our environment: the way we sit, point, stand, walk, raise hands, write, doodle, and turn pages, are all done through our encounters with things such as books, iPads, tables, maps, and pencils. This paper offers a theoretical framework for exploring how this commonplace contact and the vitality of touch are key to understanding education, not as an achievement or an instrument of acquisition, but as a *process* through which one becomes a subject capable of both living and leading a life well with others.¹ Education, on this view, is not merely about learning specific skills or **content** (although this is undoubtedly important), but about seeing our capacities for being in the world as contingent upon our relationships and contacts with the world. Education is thus indelibly connected to *how* we encounter things and others and not solely to *what* we encounter. Thus the dynamics embedded in those encounters are an important dimension of teaching, learning and curriculum.

As Borges intimates, meaning or knowledge comes not from a thing in itself but emerges out of one’s contact with it: the apple on the tongue and palate or the way the reader touches and is touched by the imagery of a poem. Indeed, education hinges on creating and staging such encounters *between* students and things, *between* students and others: the words of a novel, equations on a board, symbols on a tablet, sounds from an instrument as well as glances, whispers and touches from teachers and fellow students. One might say encounters are education’s most basic form of currency, the common practice that unites all forms of (and ideological approaches to) education. Viewing education as something one ‘does’ as opposed to something one ‘has’ means viewing these practices²⁰¹² of encounter as integral, and not incidental, to its very purpose. In this sense, education as a space of becoming (Todd 2003), experimentation (Olsson 2012; O’Donnell 2018) or subjectification (Biesta 2014; Ruitenberg 2013) is necessarily concerned with the corporeality of encounters,² and all that they entail by way of how we touch and are touched by people and things as we go about living in the everyday.

I was powerfully reminded of this in a 2017 art experiment I participated in entitled *The Boarding School* staged by the Danish art collective Sisters Hope as part of their large-scale project *Sisters Academy*. The collective took over the space of the Den Frei museum in

¹ My formulation of education here draws on a combination of Gert Biesta’s (2014) notion of the subjectification function of education as a process through which students come to lead their own life projects and Tim Ingold’s (2017) understanding of education as having as its aim students’ ability to lead lives with others. I choose, however, to include also ‘living’ a life to signal that our sensory relationships with our environment are central to ‘leading’ a life and are integral to the very educational practices we engage in.

² However, for theorists following Deleuze’s thinking, the ‘incorporeal’ is also central to understanding the potentiality of becoming. See Grosz (2017) and Olsson (2012).

Copenhagen, turning it into a sensual immersion school.³ Over the course of a 48-h period I experienced how various forms of ‘touch’ functioned to challenge the social relations upon which ‘schooling’ ‘teaching’ and ‘learning’ are normally based. The museum was transformed through soundscape, dim lighting, and draped walls. Classes were assigned at every hour throughout the day, except mealtimes, and they were taught by a core group of artists exploring sensuous contact through various pedagogical ‘experiments’. In one, I was blindfolded for half a day; in another, a small group of us were asked to ‘paint’ with ink and a piece of ice that was continually melting with the heat of our hands; in yet another, I experienced the slow pouring of water on the back of my head while in a darkened room. As *Boarding School* students, we were not only in touch with elements in our environment, but were also with each other in ways that involved both touching and being touched by others. We held hands, stroked each other’s arms, guided those who were blindfolded (or were guided ourselves), engaged in paired and group movement activities, and physically supported each other’s bodies during various pursuits—even helping each other into the bunk beds each night. Each experiment not only created new forms of sensory contact, but also one became acutely aware of the momentary nature of experience and one’s responses to it.

These sensory experiences, my responses to them (which were cutaneous, somatic, affective, and emotional), and my attending to both became part of what was *educational* about these encounters. Sisters Hope’s sensuous pedagogy was not simply about *having* an experience, but about *becoming* a subject through these experiences and through *attending* to those experiences. There were always opportunities for exploring the encounters we were having in the classes, both individually and collectively, and documentation was crucial, whether this was in the form of traditional journal writing, or a meditative reflective exercise, or group activities and discussions around sketching, painting and poetry. Thus, what the *Boarding School* highlighted was that my own complex feelings, ranging from transgressive discomfort to an expansive sense of fellow-feeling, from curiosity and interest to self-consciousness and judgement, arose out of these experiences of contact with water, ice, cushions, carpets, and sweaty hands. While I identified feelings as ‘mine’, what became clear is that they were rooted in the sensory relations experienced in contact with things and others in the environment. What the *Boarding School* made evident is that education transpires through the provocation of bodily contact itself.

This paper explores the dynamics of touch—as both a touching and being touched by—as central for understanding educational encounters as sensory landscapes of contact. Now, more than ever, this is important to consider in light of recent social distancing measures and on-line experiences of teaching, for it potentially points to not simply what is ‘missing’ from digital experience or distanced forms of education; rather, it gives us a way to reflect on and inquire into how such practices also invite their own encounters of contact. Whilst it is not my intent here to probe this deeply (indeed this would be another paper entirely),⁴ I do hope to raise concerns that can be useful in discussions about what kinds of embodied encounters are possible even within this context. This paper turns first to a discussion of touch’s centrality to life itself in order to contemplate how it is not merely one of the senses but signifies as the primary mode of all bodily contact with the world. This vital aspect will

³ For a description of the two main projects falling under the Sisters Academy umbrella, *The Boarding School* and *The Takeover*, see <http://sistersacademy.dk>

⁴ For a more detailed discussion of these issues, please see chapter 6 in my forthcoming book, *The Touch of the Present: Educational Encounters and the Politics of the Senses* (SUNY Press).

then be examined in relation to the specific ways bodies experience contact with the world, through their membranes, morphological make up and their movements. Here, I argue that these physical aspects offer us a more nuanced understanding of what is actually going on in educational encounters than merely seeing them on purely cognitive or intellectual terms. I draw on a number of philosophers and theorists to argue that attending to one's bodily entanglements with the world matter to the very practices of education—how we teach, learn and encounter each other as well as objects of study. I conclude with some thoughts on what morphologies, membranes and movements specifically can offer to a sensuous understanding of education.

The Vitality of Touch and Bodies of Encounter

To claim that the dynamic of touching and being touched is integral to *educational* encounters is also to acknowledge its central place in existential terms. From an anthropological point of view, Ashley Montagu has shockingly pointed out in his classical work *Touching* (1986) that even infants whose biological needs are fully met can die from a lack of touch; whilst they were fed, kept warm, and sheltered, these infants perished because they did not experience those sensations of touch needed for bare existence itself. A living body, as Montague shows over and over again through different cultural references, not only requires physical nourishment, but needs to feel and to be felt in the world.

Indeed this has been written about as early as Aristotle who sees touch as being essential to our very existence as animate creatures: “without touch,” he writes, “it is impossible for an animal to be” (*De Anima* 435b). In *De Anima*, in which he lays out the conditions of perception and sensation, Aristotle identifies touch as occupying a special place in the five senses. Touch alone puts an animal in *direct* sensory contact with the things it appetitively seeks: “sensation arises immediately on contact” (423a). For Aristotle, despite the fact that touch is placed low on the hierarchy of the senses, and indeed of life itself, coming as it does after the higher order workings of the mind, it is paradoxically also that which opens us to the world most directly and as such is central to our existence. As Pascal Massie (2013) puts it: “It is ‘basic’ in the sense that it is *vital*,” an animal can exist without sight, hearing, taste, or smell, “but the loss of tactility is its death” (78). It is this vitality of touch that sets it as being both apart from and essential to the other senses.

This relation between touch and being is further amplified when we consider that touch is not only part of the system of the five senses, as Aristotle and commonplace western frameworks would have it, or of the six of Buddhist and Brahmanical thought, or of the 8–22 categorised by psychologists and neuroscientists.⁵ As its vitality attests to, it is also the primary way we relate to, in, and with the world through the other senses. That is, the somatic contact we have with things, ideas, and other people through our senses are all variations of touch, at least at the level of epithelial sensitivity. From a biological perspective, epithelial cells are to be found throughout the sense organs, not only the skin, and are part of the gastro-intestinal system, respiratory system, vagina, and placenta. They not only largely act at the border with the ‘external’ environment but can also allow transmission and secretion of fluids. Moreover, sensory receptors, nerve cells and epidermal

⁵ In addition to the usual five senses, ‘mind’ is a sixth sense within some eastern traditions, while Mark Paterson (2007) outlines some of the additional ones from psychology and neuroscience as including proprioception, kinaesthesia, and the vestibular sense.

cells all derive from embryonic epithelium. Because of these epithelial networks, scientists have found that the skin can “perceive” light and that tactility can be involved in “seeing” objects.⁶ Thus to claim that our encounters with other elements in an environment⁷ are matters of touch is no mere metaphor. As living bodies, we touch and are touched by things continually, floating in a sea of constant sensation.

But what is also vital about touch is the fact that these sensations are the condition through which we emerge as subjects and as such it is central to any education concerned with how we live and lead lives with others.⁸ Brian Massumi (2015) discusses how subjectivity emerges out of a relational field, whereby the body “always affects and is affected in encounters; which is to say, through events” (ix). Events are moments of affective contacts that “strike the body as immediately as they stir the mind” (x) and cut across categories of experience, including perception, memory and experiences of social identity. That is, for Massumi, bodies *feel* (through the senses) before a specific form of signification, conceptualisation, classification, or categorisation is assigned to it; that is before we can think, reflect or act.

We can see this happening on a daily basis with what Massumi, drawing on Deleuze, calls ‘microperceptions’—that is, those perceptions that are experienced and “felt without registering consciously” (Massumi 2015: 53); they are “imperceptible,” though central, in encounters. For example, I might experience a sudden tension when walking into a classroom before I even recognise the reasons why or am conscious that it is ‘me’ who is the subject of the feeling. I have been touched by something that hasn’t fully registered consciously. I then might seek to identify its source and decide how to respond to it. It is at this point that I own it as ‘my’ feeling. Then and only then does this feeling belong to ‘me’; “but in the instant of the affective hit, there is no content yet” (Massumi 2015: 54). Significantly, this is accompanied by bodily sensation and movement: my stomach clenches, my breath becomes shallow, my jaw muscles tighten. These are not simply bodily ‘effects’ of tension. Instead, the bodily sensations become the tension. Initially, there is the bodily movement of clenching, tightening, breathing, and it is only after experiencing this that I can then categorize this as ‘tension belonging to me.’ **Bodily movement itself is vital: it is the feeling that is then identified (with) and categorized as ‘mine’.** This is the path by which we proclaim that *I* am tense, *I* feel tension.⁹ Sensations are simply forces of intensity, to put it in Deleuzian terms, that act upon the nervous system; they only find a home in ‘my’ body, in ‘my’ history, in ‘my’ memory after taking on the form of identification.

Thus the vitality of touch lies in the way it generates feeling and sensation that are not only crucial for survival, but for becoming a subject. Touch is not incidental but integral to how we come to be in the world; how we come to identify ourselves as who we are, and who we might become. It is the primary modality through which we come to claim an I.

⁶ See Cronin (2017) and Hadlington (2008) for a description of how skin sees light. Noë (2009) outlines a fascinating experiment whereby a man who is blind is able to see with the aid of stimuli from electrodes placed on his thighs.

⁷ I use the phrase ‘other elements in the environment’ in order to highlight that each of us is indeed a singular element in any given environment, which is composed of things as well as living matter.

⁸ Indeed, one might claim the aim of such an education is to help fashion, select or channel some of these sensations into new forms of subjectivity. I discuss this in the conclusion.

⁹ Buddhist philosophy articulates a similar trajectory: sensations arise to which we then attribute, for example, the feeling of ‘anger’, to which we then, in turn, attribute as belonging to ‘me’. The sensation becomes ‘my anger’ instead of being something we *experience* as something that both arises and passes away. In an educational context see the discussion in Todd (2015).

In this sense, bodies are not so much carriers or bearers of social meaning *in* encounters or even *through* encounters, but are essentially *of* encounters, *of* relation.

Membranes and Morphologies

Being *of* relation means that bodies (and the subjects they give rise to through contact with the world) are primary sources for how we understand the world. As Richard Kearney (2015) notes, we “discern and discriminate...through flesh” (105). Such discrimination is important from the point of view of how differences and distinctions are actually shaped through touch. In this way, they are also educationally significant for the way the world becomes present for students foremost through contact with objects of study, with the materiality of their environments (such as classrooms), with teachers, and with fellow students. Thus, while I mentioned above that we float on a sea of sensations, *some of these sensations begin to matter more than others*, and some of them factor profoundly into how we become subjects and form understandings of the world. Educationally speaking, the ways students begin to classify and categorise elements *in* the environment are based on how we discern and discriminate through the dynamics of touch *with* the environment.

According to Maxine Sheets-Johnstone (2016), differences and distinctions are made not solely in the mind as conceptual classifications, but through events of contact that are *corporeally* dynamic, infused as they are with movement across boundaries. The experience of touch is elementary, a literal flowing between inside and outside. Echoing Aristotle, Sheets-Johnstone claims:

Tactility is immediately and directly experienced in all corporeal ~ intercorporeal and subject ~ world relationships in which we touch and are touched by others and by things in our surrounding world. In fact and in truth, we are always in touch with something. (2016: xix)

Sheets-Johnstone understands bodies as organisms that exist with boundaries, surfaces, and coverings—that, in short, have animate *form*. “Membranes are contour-defining; they set off a certain spatial individuality. Indeed in the beginning was not simply a membrane but *form*. The diversity of life is first of all a diversity of *form*” (2009: 136). From the simplest of membranes in the form of bacteria and algae to the epithelial cells of sponges, from the exoskeletal plates and hairs of invertebrates to the skin, scales and fur of vertebrates, “nature testifies amply... to the import of a boundary... Exquisitely diverse and complex tactile structures are the fundamental mode by which organisms actively meet the world” (2009: 139). This means that our living in the world is shaped by the kinds of surfaces through which we meet it; our very capacity for feeling and sensation is conditioned by the corporeal dimensions of our coverings and the sensitivities of their surfaces.¹⁰

¹⁰ At times, there is an insistence in Sheets-Johnstone’s work on ‘boundaries’ in order to establish that not everything is possible for a given organism and that we are somehow bound to (and not only by) the surfaces of our skin. While skin might indeed be a necessary limit, it is important not to reify or equate the “subject” or “self” with the boundaries of the skin—for the reason that such reification can also operate as a slippery descent into racist and colonial forms of identification of skin with subjectivity. For an in-depth discussion of these latter issues, see Sara Ahmed’s *Strange Encounters: Embodied Others in Postcoloniality* (2000).

Human infants, in exploring their environment, move through it, displacing air and coming into physical contact with substances and things. Through this dynamic contact of touching and being touched by, they develop a conceptual sense: “elemental spatial concepts such as near, far, open, close, inside, and outside, are contingent on kinetic/kinesthetic experience; elemental qualitative concepts such as smooth, sudden, intense, attenuated, and soft, are embodied in affective experience” (2009: 365). For Sheets-Johnstone, these represent fundamental “*nonlinguistic corporeal concepts*” (2016: x). Inside and outside are not primarily categories of the intellect but felt concepts. Drawing on Daniel Stern’s psychoanalytic work with infants, Sheets-Johnstone notes that for the infant, inside is not so much that which is opposed to outside as it is a “felt center of dramas” (2009: 366). That is, it is the sensation generated through contact that actually gives us a *sense* and feeling of what we hold to be ‘inner’. Echoing the emergence of the subject at the nexus of bodily encounters, our very sense of spatiality—of what is ‘inside’—occurs only *as* a relationship to things in our environment; it is not prior to it. Inside is not simply a *spatial attribute* of the body developed in relation to touch, or a way of indicating some already given interiority of the subject, but can be seen, rather, as an *affective region or territory of particular intensities of touch*.

As such, the living body is *in-formed* by intensities of touch, as Massumi (2015) would put it. As a body relates to things in the environment, it experiences form as felt intensities: brushings, pushings and pullings, caresses, shoves, resistances, and the like. Sheets-Johnstone also writes:

Contacts create pressures, and pressures, however minimal, create deformations—surface phenomena. Bodies are squeezed by things, bent by things, rustled by things. They are formally deformed in highly varied ways by what they meet. In a very real sense, they *give in* to the world and in giving in, recognize what in the world they are touching. It is thus their very formal deformations that are at the heart of their knowledge. (2009: 140)

On this view, bodies are susceptible to the world in a way that effects their very formation, the language here suggesting a kind of ‘submission’, a release of the body into the world of touch. The economy of touch works something along these lines: to touch something requires a capacity to be touched, and to be touched allows for the opening needed to touch the world, which lies, as she suggests, at the heart of knowledge. To be ‘deformed’ by the world implies a capacity to be formed and indeed transformed that is only possible if we are already predisposed to experience the intensities of touch: we are, as relational beings, vulnerable, sensitive, susceptible. Indeed, as Sheets-Johnstone notes, because of their surface sensitivities, living things “are *always potentially at the threshold of the world*, sensitive to its nuances and portents” (2009: 138—emphasis added).

From an educational point of view, “always potentially at the threshold of the world” means seeing students as existing in that liminality where transformation is possible, where they are open to what they are being exposed to and potentially changed by that encounter. Indeed, the entire project of education depends in a fundamental way upon students’ bodies being susceptible to what is being said, done, and offered to them and, moreover, to adapt, to learn and be altered by these interactions. However, this physical liminality is not something that is often considered as central to educational practices, and it is to a brief exploration of this that I now turn.

Movement and the Liminal Spaces of Touch

Architect Juhani Pallasmaa (2012) focuses his attention precisely on liminality in his most famous work, *The Eyes of the Skin*. What makes this work so interesting for considering educational encounters from the point of view of touch is the way the specificities of educational space can be seen as co-creations of bodies and their environments through tactile contact. Architectural space, for instance, is not simply a ‘given’ but is generated through the tactility of the senses. Pallasmaa writes, for example, about “acoustic intimacy:”

Anyone who has become entranced by the sound of dripping water in the darkness of a ruin can attest to the extraordinary capacity of the ear to carve a volume into the void of darkness. The space traced by the ear in the darkness becomes a cavity sculpted directly in the interior of the mind. (54)

While this evocative image seems to rely on a definite distinction between inside and outside, Pallasmaa is also careful to point out the “osmotic” relation between them. Sound touches us and creates an experience of space, rather than simply creating a sensation of hearing, which can only be achieved if insides and outsides are not so stable. For him, “the most archaic origin of architectural space is in the cavity of the mouth” (63), hence suggesting not simply a projection of morphology onto the world, but a (spatial) continuum along which both architecture and bodies are registered. Speaking of a door pull as a “handshake” of a building (67), Pallasmaa indicates the movement, or action, of architecture itself. He writes,

Stepping stones set in the grass of a garden are images and imprints of footsteps. As we open a door, the body weight meets the weight of the door; the legs measure the steps as we ascend a stairway, the hand strokes the handrail and the entire body moves diagonally and dramatically through space. (67)

Architectural space in this way is a *living* space; bodies do not only move tactily through space but also create space through their very movement and touch as they themselves emerge through that space.

This creation of space allows us to imagine that the liminality between bodies and the environment, the deformations that happen to bodies, and the generative capacities of touch all contribute to a sense of emplacement in the here and now that is always shifting. Moreover, the touch of skin, along with its multi-sensorial extensions, creates an uncertainty about where my body ends in the relational space that is created.

We feel pleasure and protection when the body discovers its resonance in space. When experiencing a structure, we unconsciously mimic its configuration with our bones and muscles: the pleurably animated flow of a piece of music is subconsciously transformed into bodily sensations, the composition of an abstract painting is experienced as tensions in the muscular system, and the structures of a building are unconsciously imitated and comprehended through the skeletal system. Unknowingly, we perform the task of the column or of the vault with our body. (71–72)

What Pallasmaa highlights is that we resonate with things in the world morphologically at the same time as those things resonate with our bodies, generating sensations that alter the felt experiences of insides/outside. And it is this that enables us to think about how the body is actively involved in the constitution of educational spaces: how we *move* creates spaces that touch us and through which we ourselves become extended through that space.

Our liminality with others creates a deep sensory entanglement through which subjectivity and space emerge simultaneously.

A Sensuous Education: Attending to Spaces, Places and Becomings

As we have seen, morphology, membranes, and movement all contribute in significant ways to who we think we are and who we might become. And they do so because they are what allow us to relate to each other and to the world. Each of them is fundamental to our connection to things and others and is central to our formation as human subjects. We cannot think of either our own living experience or how we lead our lives politically and ethically without contact: our moving, sensing bodies touch the environment as they are touched by it. As Sheets-Johnstone makes clear, touch in all its variety enables us to begin to conceptualise the world. This allows us to imagine how the dynamic of touch informs, from an early age, our understanding of self, others, and objects of our environment. Touch, however, is not only a soft caress or an innocent movement of reaching out. It can also be violent, both in terms of the unavoidable deformation that is at stake every time I touch something (which can be more or less shocking to the system, such as a cut to the hand, or a fall that leads to a broken bone) and in terms of how it can be *used* to control and threaten, particularly in schools. My emphasis here, however, has not been on its *uses*, but on the nature of bodily contact that makes us vulnerable and susceptible to such violence in the first place. Thus, if we can understand how central touch is to human flourishing and survival, then we also must understand how using touch in harmful ways is absolutely devastating for the emergence of the subject and for any education committed to that emergence.

In reflecting on the significance of membranes, morphologies and movements for a sensual education, I highlight by way of conclusion what this framework of touch offers to a reconception of educational settings and practices, particularly those concerned with enabling students to live and lead lives well with others.

First, in terms of the liminal spaces of touch: when we think about the kind of spaces through which education happens, such as classrooms (which can be rooms in traditional school buildings, outdoor areas shaded by trees, or all-purpose pre-fab buildings in refugee camps), libraries, or experimental art spaces such as *The Boarding School*, touch allows us to question how that space becomes constituted by the bodies that live in relation to the elements that compose it. With respect to a classroom specifically, we do not simply ‘inhabit’ an already existing space as teachers and students, but co-create that space through our movements and positionings, through our living *through* space. As Erin Manning (2012) writes, “the room becomes *configuring* as the body *recomposes*.” (15):

My movement creates the space I will come to understand as ‘the room’. The room is defined as my body + the environment, where the environment is an atmospheric body. Without that particular moving body that particular environment does not exist. (2012: 15)

It thus matters to educational ‘rooms’ how we resonate with the environment insofar as we then create a ‘place’ where education happens. By this I mean that our touching and being touched by the world, our movement through the environment, allows us both

collectively and individually to turn those spaces into places we call classrooms.¹¹ That is, classrooms are not simply designated rooms within a school building but are the result of complex choreographies and tactile movements. Students and teachers sit, walk, read, listen, talk and touch each other, their movements at different times syncing, improvised or intimate, creating a sense of space they share, even though they may *feel* the space uniquely. But in sharing this space in concrete ways, through rhythmic patterns of interaction with their environment, they also create a common place, recognizable as ‘this is where education transpires’. It also means that through these very movements, we *become* students and teachers, that is subjects *of* that space we have created, which then solidifies through the sense of common purpose into the place of the classroom.

For example, there was no traditional classroom set up at *The Boarding School*. One way of describing this is to say that the sensuous experiments set up an educational ‘space’ within the ‘place’ of Den Frei museum. However, due to the ways in which the felt experiences of touch operated through my body as a participant with others, I began quickly to feel a sense of location along with my fellow students in certain areas of the School. That is, some of the draped off areas in the School became *places*; they became areas of connection and discussion; they were places we returned to again and again throughout the day. Even in a conventional classroom, there will be places within it that are created out of the common space: the reading corner, the art supply area, the area near a window: all these can take on a sense of ‘specialness’, of particularity. This means that the space we create with our bodies can lead to other kinds of feelings of belonging, togetherness, and specificity. The sensuousness through which space is generated becomes transformed through our interactions in that space into intimate places we share with others.

Secondly, touch is intimately involved with what we actually *do* in/through spaces and places of education in terms of how students come to understand themselves as subjects in relation with the world. As such it speaks to a sensual aim of education as one that enables students to make a sensory relationship between their bodies and what is under study. Students’ encounters with ideas in the form of books, exercises, science experiments, writing or art-making occasion sensations that are indispensable to their becoming, to how they come to actually embody knowledge, values and beliefs. But if education becomes overly focused on the intellectual, mental or cognitive aspects of these encounters, then opportunities for exploring and attending to this sensuality are not given their due in how students understand, make a relationship with and ‘know’ something. Bodies, and not only minds, are key to understanding the important role the felt responses, the attachments, the sensations of contact play in education and in curricular knowledge. Think of all the microperceptions involved in the experiencing of new ideas, new practices, new knowledges in schooling environments. For instance, many of us easily recognize the discomfort of encountering new ideas not only because we feel bodily *expressions* of apprehension, excitement, fear, or anxiety toward them, but also because the bodily *formations* that such ideas require of us are *felt* as strange, they provoke new and unfamiliar movements and sensations. And these can range from learning new cultural practices of eating, greeting, praying, and interacting to reading aloud, speaking a language, drawing a picture, and recounting a story—all of these involve our bodies taking on specific forms. Through our morphologies, we kneel, sit, bow, bend, lean, squeeze, resist—and each of these requires morphological pressures and intensities of sensation (deformations) that then occasion new

¹¹ This idea has come about in discussion with Elisabet Langmann and Lovisa Bergdahl. See also Løvlie (2007).

formations, new modes of touching and being touched by the world. And even though we might share with others similar patterns of behaviour, we nonetheless identify with those sensations in different and sometimes contradictory ways. The educational point is to acknowledge these felt experiences as central to how students develop their sense of subjectivity and to see education as offering methods for incorporating these experiences into their lives.

Indeed, our practices of education can be reframed as bodily enactments. The bodily *enactment* of studying, discussing, reading, listening, thinking and attending means participating in a network of sensory relations that are experienced variously as vital intensities. Bodies sitting on chairs, jostling in groups, leaning on desks, tapping pencils, grasping pens, turning pages, bending over a display, pointing to objects, raising voices, listening to others' voices, and gazing out the window make up a small part of the myriad and banal ways students and teachers are in touch with elements in their environment. Seen through complex networks of intensities of touch, these encounters pulse with the beating of life: the various pressures of the chair against the thighs, buttocks and lower back; the weight of the door as it is pulled by the arm bending toward the body; the brightness of fluorescent lights overhead; the loudness of children running down the hall—all work to in-form and impress upon bodies in ways that *make* students (and teachers) out of cells, membranes, nerve endings, and skin. That is, teachers and students are 'created' out of the bodily raw materials which interact with the environment; they are not 'given'. While those pressures largely remain unnoticed until they irritate, please, or obstruct, they act to remind us that bodily contact through which becoming a subject is made possible involves an array of microperceptions, of touches and touchings, of wave-like intensities of pressure and force. They are the raw material for how we come to understand the world, through categories, classifications, and experiences. **Becoming a subject out of this vibratory array of sensation is a generative process, and students become resonant with certain elements in the environment over others. Taking this relational view seriously means seeing that students touch and are touched by the environment differently.**

Thirdly, this difference is crucial since a sensuous education is necessarily about taking our condition of 'floating in a sea of constant sensation' and making something of it that can help students to live and lead lives well with others. It requires fashioning possibilities for attending to those sensations in productive ways. But it must do so without simply policing these sensations and microperceptions. Instead, **a sensuous education is about making our different sensations a point of educational concern, inviting students into their own forms of experiential inquiry, both alone and collectively, enabling them to make a connection between their experiences and their courses of study.** These might involve methods of reflective writing, art-making, discussion, performance and forms of documentary analysis. Indeed, this requires an education in and of the senses, an education that not only opens up students to a wide range of sensual experience through our pedagogies, but that also offers them practices and methods for attending to these experiences.

We do not have to go to the lengths of Sisters Hope's performance art to create exercises for students to inquire into their own sensations to see how those sensations are part of what it is they come to know, understand and make meaning of. Moreover, a sensuous education focuses on the sensory complexity involved in becoming a subject and opens up educational conversations about what qualities of sensory encounter are beneficial to students' becomings. A sensuous education therefore has a threefold task: to acknowledge the sensory elements of everyday life as important to meaning and knowledge; to engage in sensory strategies and experiments; and to attend to the felt sensation students experience and make them central to our very practices of study and inquiry. In other words, a

sensuous education is one that respects the interconnection of life and places value on the vitality of touch, for it is at the “threshold of the world” where living and leading lives with others is truly made possible.

References

- Ahmed, Sara. 2000. *Strange encounters: Embodied others in post-coloniality*. London: Routledge.
- Aristotle. 1986. *De Anima*. Translated by Hugh Lawson-Tancred. London: Penguin.
- Biesta, Gert. 2014. *The beautiful risk of education*. Boulder: Paradigm.
- Cronin, Thomas. 2017. Seeing without Eyes. *Scientific American*. <https://www.scientificamerican.com/article/seeing-without-eyes/>
- Grosz, Elizabeth. 2017. *The incorporeal: Ontology, ethics and the limits of materialism*. New York: Columbia University Press.
- Hadlington, Simon. 2008. Humans may sense light through skin. *Chemistry World*. <https://www.chemistryworld.com/news/humans-may-sense-light-through-skin/3002007.article/#/>
- Ingold, Tim. 2017. *Anthropology in/as education*. London: Routledge.
- Kearney, Richard. 2015. What is carnal hermenutics? *New Literary History* 46 (1): 99–124.
- Løvlie, Lars. 2007. The pedagogy of place. *Nordisk Pedagogik* 27(1): 32–37.
- Manning, Erin. 2012. *Relationescapes: Movement, art, philosophy*. Cambridge: MIT Press.
- Massie, Pascal. 2013. Touching, thinking, being: The sense of touch in Aristotle’s *de Anima* and its implications. *Minerva* 17: 74–101.
- Massumi, Brian. 2015. *Politics of affect*. Cambridge: Polity.
- Montagu, Ashley. 1986. *Touching: The human significance of the skin*, 3rd ed. New York: Harper.
- Noë, Alva. 2009. *Out of our heads: Why you are not your brain, and other lessons from the biology of consciousness*, 1st ed. New York: Hill and Wang.
- O’Donnell, Aislinn. 2018. Experimentation in institutions: Ethics, creativity, and existential competence. *Studies in Philosophy and Education* 37(1): 31–46.
- Olsson, Liselott. 2012. Eventicizing curriculum: Learning to read and write through becoming a citizen of the world. *Journal of Curriculum Theorizing* 28(1): 88–107.
- Pallasmaa, Juhani. 2012. *The eyes of the skin: Architecture and the senses*. Chichester: Wiley.
- Paterson, Mark. 2007. *The senses of touch: Haptics, affects and technologies*. New York: Berg.
- Ruitenbergh, Claudia. 2013. The double subjectification function of education: Reconsidering hospitality and democracy. In *Education and the political: New theoretical articulations*, ed. Tomasz Szukdlarek, 89–105. Rotterdam: Sense.
- Sheets-Johnstone, Maxine. 2009. *The corporeal turn: An interdisciplinary reader*. Exeter: Imprint Academic.
- Sheets-Johnstone, Maxine. 2016. *Insides and outsides*. Exeter: Imprint Academic.
- Sisters Hope www.sistershope.dk
- Todd, Sharon. 2003. *Learning from the other: Levinas, psychoanalysis, and ethical possibilities in education*. Albany: State University of New York Press.
- Todd, S. 2015. Experiencing change, encountering the unknown: An education in negative capability in light of buddhism and levinas. *Journal of Philosophy of Education* 49(2): 240–254.

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