



PROJECT MUSE®

---

Not at a Distance: On Touch, Synesthesia, and Other Ways of Knowing

Published by



Ferracina, Simone.

⌘ Case Files, Vol. 01.

Punctum Books, 2021.

Project MUSE. <https://dx.doi.org/10.1353/book.84314>.

➔ For additional information about this book

<https://muse.jhu.edu/book/84314>



This work is licensed under a Creative Commons Attribution 4.0 International License.

[136.0.111.243] Project MUSE (2025-01-19 01:19 GMT)

# NOT AT A DISTANCE

Erin Manning



*photograph by Brian Massumi*

**A thousand other things sing to me.  
— John Lee Clark**

Every possible feeling produces  
a movement, and that movement is  
a movement of the entire organism,  
and of each of its parts.

— William James

## On Touch, Synesthesia, and Other Ways of Knowing

What if mirror–touch synesthesia, defined as the experience that ensues when the stimulation of one sensory modality (vision) automatically triggers a perception in a second modality (touch), in the absence of any direct stimulation to this second modality, were not only misnamed, but radically misunderstood? It's not just the nomenclature that I am concerned with here—why a synesthesia that is said to move between touch and vision isn't called vision–touch synesthesia like its sisters, sound–taste, color–grapheme, shape–taste—but the very presupposition that situates it in the parsing of sense modalities (vision + touch) with bodies bounded into subject-locators of sense. For even if it were called vision–touch synesthesia, it would still take for granted a whole set of beliefs about both how perception works, not to mention what is considered worthy of registering: despite a rare admission that for some the experience of being touched—without touch occurs through an object,<sup>1</sup> mirror–touch synesthesia is predominantly a humanist concept. To be touched by that which we see is, in most of the literature, to be touched by the human. This is the question I want to ask here: what is assumed in the presupposition that to be moved is to be moved by the human. And: what is assumed when we take vision as the predominant activator for the experience of being touched by the world? Circling around autistic perception and deafblindness, I want to ask how neurotypicality as normative standard for human experience operates in the presuppositions of sense.

1. “It is unclear if MT synesthesia is specific to viewing a real person, rather than a dummy figure or an object being touched since in their supplementary material Banissy and Ward discuss some cases of MT synesthesia also being induced by viewing objects being touched” (Jewanski 2009, 293).

## A THOUSAND OTHER THINGS SING TO ME

The dominant neuroscientific literature works with a deficit model of sensation that is neurotypical through and through, neurotypical most emphatically in its presupposition of a body schema which acts as the normative ground on which all divergent experience is mapped. In this literature, mirror–touch synaesthesia is chiefly described, as mentioned above, as depending on one body seeing–feeling the touch of another directly on their skin: you touch yourself and I feel it because I see it. In this account, the experience of feeling the other is, paradoxically, considered a deficit: it weakens the body schema. With the feeling of you directly experienced on my body, I lose a bit of what separated me from you. The coming into relation is considered a loss.

The deficit model of sensation begins with the presupposition that senses are fixed and located, working with a pre-constituted body schema whose “sense of agency,” it is said, is fractured by the increase in sensation. Bodies lose their integrity in the encounter with the touch of the other. This approach, which situates “sense of agency” as central to what it means to have a body, placing what I have called the intentionality–agency–volition triad ahead of the *agencement of* experience coming into itself to activate a bodying, emphasizes that bodies are above all individual, separate envelopes that are in the world but not of it. Bodies are only properly bodies when they can fully distinguish themselves from the world, the implication always being that bodies are separate entities that have dominance over their sensations, and, by extension, over their movements. The deficit model perceives any deviation from this norm to be a lack.

2. In the important video *In My Language*, Amelia (formerly Amanda) Baggs demonstrates the degree to which the way she senses and perceives the world excludes her from the category of the human (Baggs 2007).

*In the context of MTS [mirror–touch synesthesia], one prediction from this would be that if there were agency–processing deficits these would exacerbate more basic disturbances in bodily awareness. We are clearly suggesting here that MTS is primarily a “disorder” of ownership, which can have consequences for SoAg [sense of agency] and which in turn can further worsen ownership disturbances (Cioffi, Moore, and Banissy 2014).*

Bodies that sense too much, bodies that feel the touch of the world and are moved by it, are deficient. When we lack the ability to distinguish our world from the world of others we lose something of what makes us, properly speaking, bodies, and, by extension, human.<sup>2</sup>

Feeling the touch of another body or another object on our body is already a misnomer. It makes too strong a distinction between body and world, a distinction that is everywhere at play in the neuroscientific studies of all forms of synesthesia, but perhaps even more forcefully so in studies of mirror–touch synesthesia.

Individuals with mirror–touch synesthesia (MTS) experience touch on their own bodies when observing another person being touched. Specifically, the images that participants had initially perceived as containing equal quantities of self and other became more likely to be recognized as the self after viewing the other being touched (Maister, Banissy, and Tsakiris 2013, 802).

Self-identity is the starting point, and it is in the self-identity that the experience of touch is located: “These results suggest that observing touch on others not only elicits a conscious experience of touch in MTS, but also elicits a change in the mental representation of the self, blurring self–other boundaries” (ibid.). There is no mention here of the emergent quality of sensation produced in the world. No attempt is made to explore the ways in which the relational milieu activates this singular composition. Nor is there an effort to explore how the touch that is felt might move beyond the limited concept of simple location—no questions are asked about how that touch alters the feel of the space, the quality of sensation beyond the actual location of the touch. What is assumed is always that we know what constitutes a body—a body, it must always be remembered, that, in its neurotypicality, stands in for the normative standard of whiteness.

Because there is no account of a processual bodying, there is no way to articulate what is activated in the sensation, only what is lost. When bodies are mapped in advance, abstracted from their environment and parsed according to the normative standard, the only conclusion can be that what diverges is a loss—a deviation from the norm. For this is clearly what is at play here, though never addressed as such. In the mirror–touch example, the activation of sense caused by the overlap of sense means individuality (the neurotypical norm) is weakened: in their “becoming one” the one who senses too much loses the very boundary that made it a body. In study after study, the assumption is that the field of relation<sup>3</sup> activated by the touch of the world *reduces* the body schema, placing not only the body at risk, but the whole edifice of representation the neurotypicality upholds. “[W]hen MTS individuals view touch on others, it not only elicits a shared tactile experience, but actually alters their body representation” (ibid., 803). This altering of the body representation is a deficit because the assumed contours of the body are no longer intact. Without the intactness a body no longer properly feels the distinction between body and world, between self and other.

What if the contours of a body were never intact? In this return to an account of touch more than a decade after publishing *Politics of Touch* (Manning 2007), I hope to do four things: 1) demonstrate that the force of reaching–toward, which is how I defined touch in *Politics of Touch*, troubles the model of “sense of agency” at the heart of accounts of mirror–touch synesthesia; 2) build on John Lee Clark’s account of distantism as it plays out not only in DeafBlind culture but more broadly in the neurotypical worldview; 3) consider the ways in which accounts of mirror–touch synesthesia as well as synesthesia more broadly support a deficit model of sensation that is deeply neurotypical; 4) explore how ProTactile, a movement for language-in-the-making and DeafBlind experience, remaps the spacetime of sensation away from the categorical limitations that come with the imposition of sensory regimes that privilege the body–world separation.

3. See “Toward a Leaky Sense of Self” in *Always More Than One: Individuation’s Dance* (Manning 2013) for a more detailed account of the relational body.

*The word on the breeze, and through the floor.*

— Liz Ball

4. For an important critique of ABA, see Yergeau (2018). See also Smith-Donohoe (2018) as well as Anthony Easton's articles, including "Why Do Autism Specialists want to Stamp Out Autistic Traits?" (2016).

"The TV is off, but I can still hear (and feel on my skin) the current of electricity powering all that equipment," writes Aspiegrl on her blog "Autism and Angels" (Aspiegrl 2011). Hearing what moves infrasensorially through her surrounds, being moved and changed by the field of relation, makes it impossible for Aspiegrl to hold onto the neurotypical imposition of body-world separation. Already considered at a deficit by the standard of neuroscientific work on synesthesia because she is autistic, she is doubly pathologized, her divergent sensory processing further evidence of her faulty "sense of agency." She suffers from a disturbance of sense perception that will, most likely, be considered as a disadvantage in learning environments: she will be taught, if not through the violent practices of ABA, then through the ubiquitous behavioral codes that are systemic in our education systems to direct her perception so as to sense less fully, thereby attempting to craft a less porous body.<sup>4</sup> But this will not actually make her sense less. It will simply make more violently apparent that a sensing body in movement is a deficient body. She will learn that in order to pass she will have to background the feel of electricity on her skin. She will have to act as though she is in control of her surroundings. She will pretend that she has agency over what moves her. She will be told in a thousand ways that value resides in subtracting from the welter of experience. She will learn that the standard of neurotypical life is one of sense-poverty. She will be considered properly treated if she can "pay" attention, attention no longer dancing at the pace of the more-than.

### **What if we were to turn the sensory model on its head and ask what keeps so many feeling so little?**

Synesthesia is usually defined as an overlapping or cross-mapping of the senses. In the most widely studied cases of synesthetes—color-sound and color-grapheme—great emphasis is placed on mnemonic systems, focusing on the modality of parsing from the more-than synesthesia is said to facilitate.

Synesthetes are acclaimed for their unusual abilities: autistic Daniel Tammet,<sup>5</sup> for instance, is celebrated for being able to visualize pi to a previously unimaginable degree (22,514 digits), while others inspire wonder by being able to retrace their past to a remarkable degree thanks to a color–grapheme synesthesia that enables them to see any day of the week as far back as they want to go (Buxton 2016). These stories—and there are many of them—are fascinating, and the abilities are remarkable, but they only touch synesthesia at its limit. In addition, they foreground a model of value that is deeply neurotypical: they emphasize not the qualitative complexity of their sensual fields but what can be culled from those relational fields, and thereby quantified. And, insofar as they include autistics such as Daniel Tammet, they replay the well-worn narrative of autistic savantism, reminding us at every turn that while these abilities may be extraordinary, displaying “high functioning” traits, they do not tend to carry-over into other “lower functioning” realms of autistic experience. In addition, not only does the narrative of savantism cleave autistics by singling out, for value-added, those who have particular gifts that can be studied, it also provides an ideal opportunity to reinforce the narrative of deficiency amongst those who do not share these mnemonic talents, keeping autistics in their place as deficiently sub-human.

This approach to diversity as divergence from a neurotypical norm is all over the writing on Tammet. Described as a “high functioning autistic savant,” his sensitivity to the world is bracketed by functioning labels that only serve to reinstall neurotypical norms. For instance, when describing the ways in which he functions outside of his mnemonic synesthetic abilities, he is said to be unimaginative because “he tends to take things literally.”<sup>6</sup> The claim is as simplistic as it is widespread in the world of autism: to take things literally is to not to be able to hear the undertones of communication that veer it toward subtexts, thereby not really being able to communicate at all.

5. See Tammet's website at <http://www.danieltammet.net>.

6. In his book *See It Feelingly* Ralph Savarese (2018a) takes on this assumption that autistics cannot move beyond the literal by engaging in projects of reading literature with a number of autistics from all parts of the autistic spectrum. In an adjacent publication, discussing the book project, he writes: “According to experts, autism's ‘triad of impairments’ (in communication, imagination and social interaction) made literature a bad fit for the autistic brain. Studies from the previous three decades postulated deficits in two key areas: theory of mind and the apprehension of figurative language. People with autism, the argument went, are ‘unable to develop an awareness of what is in the mind of another human.’ If the mental states of others are beyond their reach, how can they possibly manage the



moody jungle-gym of make-believe conflict that we call fiction? And if autistic people struggle with the dowsing rods of metaphor and irony, how can they divine a work's deeper meanings? An obdurate, self-contained literality plagues autistic consciousness. This view of autism became so prevalent that a best-selling novel 'The Curious Incident of the Dog in the Nighttime' made social and metaphorical bafflement a central aspect of the protagonist's characterization. Yet with time, perspectives change, and stereotypes begin to waver" (Savarese 2018b).

7. For a wonderful story about her relationship to sarcasm, see Yergeau (2018, 69–71).

No inquiry is made by Baron-Cohen as to how the excess of sense coursing through Tammet's every thought and movement creates a radically different engagement with the world. No effort is made to understand how his hypersensorial universe shifts the conditions of sense. If there is indeed a tendency in some autistics toward literality, what shape of complexity in the field is resisting being parsed? What nuance is reverberating that can't quite be conjugated? Why assume that what is called literality in the context of neurodiversity is a lack of complexity? Might this so-called literality not be a necessary survival mechanism in the face of the too-much of all that transversally battles for prominence across the field of experience? And is this account not all too human? Might it be that human communication itself stands out less than other activities in the wash of perception, as a result of which some of its layers of sense are easily missed in the dance of attention? Or that those layers of sense that neurotypicals find so central to communication are less interesting, in the moment, than neurotypicals assume they are? Because there is no question, ever, that autistics are incapable of feeling nuance and, where apt (often in reference to neurotypicals) of using sarcasm.<sup>7</sup>

The obsession with singling out the "low functioning" tendencies in neurodiversity even in cases of autistic savantism serves to maintain the deficit model of sensation with respect to synesthesia. If we know that Tammet, despite his extraordinary synesthetic capacities, "doesn't notice if someone is upset," it will be easy to argue that the touch of another on his body decreases his capacity to truly be human. If we read that Tammet "commits frequent faux pas," is "asocial" and "avoids social situations and finds parties confusing," we are reinforced in our belief that there is no such thing as neurodiverse sociality. If what is foregrounded is that he is "obsessed," that "he has strict routines," what we learn is that no matter how sensitive he is, there is no real latitude in his capacities. And if we read that he "showed severe tantrums at change of routine as a child," that he "showed head-banging in his cot," and "sat with fingers in his ears in primary school and with his eyes tight

shut,” we become convinced in our assessment that no matter how extraordinary his reciting of pi, he has nothing on us, we neurotypicals. For Tammet is nothing more than an arhetorical unimaginative mindblind less-than-human incapable of truly being aware (of us), detached, distanced, apart, “in a world of his own.”<sup>8</sup>

Or, we recognize that all of this is less about Tammet than about the presuppositions that accompany the imposition of the neurotypical norm on all experience. Turning our attention away from the neurotypical norm, we note that with hypersensoriality comes a sensitivity so powerful that it activates the field of relation in ways sometimes impossible to hold. Bodies collapse under the strain. We learn that what the literature calls tantrums are the undoing, in this collapse, of any boundary between self and world, a body succumbing to the pain of having to hold at bay the forces that shape experience. And we learn to recognize the violence in the account, an account that polices the body–world boundary in order to maintain the well-worn habit of enforcing dominance in the name of the whiteness that always colors neurotypicality.

The violence is not only in enforcing this separation by demonizing those bodies that collapse under the strain of overstimulation, but in openly recognizing as valuable only those who can be reflected in the mirror of neurotypicality. Baron-Cohen writes:

With age, DT [Daniel Tammet] has developed more of an idea of how to behave and how he seems to others, raising the possibility that mindreading skills are not completely absent but are simply delayed. It helped when, at the age of 13, his mother was able to give him some feedback and tell him to look at others’ eyes and not at his own feet. This suggests that in individuals on the autistic spectrum, for whom such social insight and consciousness of others’ minds does not develop naturally at the right point in development, learning to consciously attend to key parts of the environment (faces, eyes, expressions) may help (Baron-Cohen et al. 2007, 247).

8. (Baron-Cohen et al. 2007). The claim that autistics live “in a world of their own” undermines the very concept of neurodiverse sociality. See Sue Rubin’s important film, *Autism Is a World* (2004). Melanie Yergeau also addresses this stereotype when she writes: “autism’s essence, if you will, has been clinically identified as a disorder that prevents individuals from exercising free will and precludes them from accessing self-knowledge and knowledge of human others (Thornton 2011). Its subjects are not subjects in the agentive sense of the word, but are rather victim–

captives of a faulty neurology. Deborah Barnbaum's (2008) *The Ethics of Autism* is one such account. A philosophical treatise, the book promotes a portrait of autism that is the antithesis of both community and communicability, echoing the stereotypical sentiment that autistics are closed off from the larger world. 'There is something intrinsically limiting in an autistic life,' writes Barnbaum (154). And, later, 'Autism cuts people off from people' (174). What Barnbaum and others suggest is that autism is a world without people, that a world without people is a world without rhetoric, and that an arhetorical life is a life not worth living—a life beyond the realm of voluntary action and intentionality" (Yergeau 2018, 4–5).



*photograph by Leslie Plumb*

The criteria for inclusion into humanity are always neurotypical. That Tammet prefers not to have eye-contact has absolutely no bearing on what he sees or feels. It is Baron-Cohen and all those who adopt neurotypical standards for body schema, those who insist that eye contact has anything to do with a regard for the other,

who are here displaying their narrow-mindedness, if not mind-blindness. As those of us who do not feel pain when looking others in the eye know, there is nothing easier than to pretend presence through eye contact while being altogether elsewhere.<sup>9</sup> Eye contact is a practiced mechanism for allowing the human to feel that we are at the center of experience, nothing more.

Daniel Tammet functions just fine. He is neither “high functioning” as a savant nor “low functioning” in the rest of his life. Functioning labels, as anyone in the movement for neurodiversity will emphasize, say nothing at all except that neurotypicals are obsessed with categories that keep their way of knowing at the forefront. To function, according to these labels, means to deploy movement, expression, sensation in ways that “pass” for neurotypical: to take on a posture that does not announce too forcefully the sensory processing challenges that come with overstimulation; to be able to meet requirements for independence imposed by a belief in individualism before all; to be able to perform competence in ways that do not endanger the body-schema of those for whom the template of neurotypicality has become second nature.

Study after study links autism and synesthesia. Indeed, this view has become so widespread that even Simon Baron-Cohen, who for decades kept his research on autism and synesthesia separate, recently decided to bridge them:

*I have studied both autism and synesthesia for over 25 years and I had assumed that one had nothing to do with the other. These findings will re-focus research to examine common factors that drive brain development in these traditionally very separate conditions. An example is the mechanism "apoptosis," the natural pruning that occurs in early development, where we are programmed to lose many of our infant neural connections. In both autism and synesthesia apoptosis may not occur at the same rate, so that these connections are retained beyond infancy (University of Cambridge News 2013).*

9. Many autistics have written about the pain of eye-contact and about the impossibility of attending to what is being said when forced to be in contact with eyes. For Laura Spoerl, “Looking at someone else in the eye means I am taking in everything about them as a person, and I become overloaded. It’s a constant stream of extra sensory or processing information on top of what I’m already trying to sort through in my head. It can disrupt any thought or speaking process I have going on and zaps my energy quickly.” In Lucy Clapham’s words: “When I make eye contact, the world around me blocks out. I can only process the immense pain and discomfort that comes to my brain. This pain goes if I look away.” Chris Armor similarly registers pain: “It’s sometimes physically painful trying to maintain a constant stare straight into someone else’s eyes. It does not mean I’m not listening or have something against the person talking to me, it’s just an uncontrollable struggle to maintain eye contact.” And Rose Howard: “For me it can be a physical pain; it feels like burning with too many emotions, and I just can’t take it in all at once” (McGlensey 2016). Of his experience with eye contact, Joost Wiskerke writes: “I’ve long known that during a conversation it’s much easier and calmer for me to look at stationary objects—floors, walls, ceilings, or skies are particularly good for this purpose. Listening to those seminars a couple of years ago made me understand that the reason why eye contact is incredibly exhausting and hugely distracting for me is not just that it doesn’t come naturally, but also that it constitutes a massive sensory input that floods my brain” (Wiskerke 2018).

In this research, rather than asking how “apoptosis” might challenge his theory of “mind-blindness”—the condition of not being able to read “the mind” of another mentioned above in relation to Tammet—by demonstrating that the hypersensorial tendency in autism that is likely in part due to “apoptosis” results in them being *more* in contact with the world and not less, Baron-Cohen takes it upon himself not only to reemphasize the concept of mind-blindness but to counter other studies that suggest that those with mirror-touch synesthesia may be more attuned to the world than those without. In a recent article, entitled “Mirror-Touch Synesthesia is Not Associated with Heightened Empathy, and Can Occur with Autism,” he and his co-writers (Robson and Allison) make their position abundantly clear (Baron-Cohen et al. 2016): “Our findings dispute the views that MT [mirror-touch] synesthesia is linked with enhanced empathy, is less likely to occur with ASC [autism spectrum disorder] or elevated autistic traits, and is specific to seeing a person being touched.”<sup>10</sup>

10. These presuppositions can be found in the vast majority of neuroscientific studies I have read on synesthesia. A notable exception is Laurent Mottron, whose team includes autistic Michelle Dawson. See, for instance, Mottron et al. (2006) and Mottron et al. (2013). Refusing the deficit model, they write: “We can hypothesize that an enhanced performance in domain-general peaks will not be observed if tasks are standardized on autistic performance. As a consequence, the extent of the size of any peak of ability is at least partly a function of the matching strategy used to compare the performance of autistics and that of non-autistics. If certain language-based instruments are used, autistics’ intelligence risks being underestimated, thus their scores on areas of strength will be similar to those of TD persons with higher IQs on the same instrument. In contrast, the finding of superior performance of autistics may lose its statistical significance when tests which minimize mandatory language demands are used, as autistics will typically score higher and will, therefore, be matched to TD persons at a higher level (for a discussion of matching issues in the study of autistics, see Burack et al. 2004). Thus, some, but not all (e.g., pitch discrimination, Simard-Meilleur et al., 2012) domain-general peaks of ability may be favored or magnified by matching strategies. However, our focus in this paper is on the types of superior performance that are so robust that they transcend matching strategies, and on how these performances, in as much as they are found only among some autistics, contribute to within-group autistic heterogeneity” (Mottron et al. 2013, 211). For a generate rethinking of neuroscientific paradigms and autism, see Ralph Savarese et al. (2010a).



11. Wikipedia, s.v. "Empathy Quotient," 2017, [https://en.wikipedia.org/wiki/Empathy\\_quotient](https://en.wikipedia.org/wiki/Empathy_quotient). Note also that the Empathy Quotient suggests that connection to humans over animals is a sign of empathy. As with Theory of Mind, Baron-Cohen seems incapable to imagine the force of relation outside of a Humanist paradigm.

12. Wikipedia, s.v. "Theory of Mind," 2017, [https://en.wikipedia.org/wiki/Theory\\_of\\_mind](https://en.wikipedia.org/wiki/Theory_of_mind). For more on autism and theory of mind, see Yergeau (2018). I have also written about it in "The Ethics of Language in the making," in *Always More Than One* (Manning 2013) and in "Coming Alive in a World of Texture," in *Thought in the Act* (Manning and Massumi 2014). For a nuanced account of empathy reading neuroscientific studies in relation to a project of reading with autistics, see also Ralph Savarese (2018a).

When Baron-Cohen speaks of empathy, he is referring to the Empathy Quotient, a measure for empathy he developed with Sally Wheelwright. Empathy, for Baron-Cohen and Wheelwright, is "a combination of the ability to feel an appropriate emotion in response to another's emotion and the ability to understand the other's emotion."<sup>11</sup> All of this is of course associated with theory of mind, "the ability to attribute mental states—beliefs, intents, desires, pretending, knowledge etc.—to oneself and others and to understand that others have beliefs, desires, intentions, and perspectives that are different from one's own."<sup>12</sup> To be empathetic is to be able to parse from the world that which most closely conforms to what we already recognize as having value. It is to carry forward a power relation that acknowledges similarity and responds benevolently to it. I feel you because your feeling corresponds to what I already recognize as feeling. Empathy, the feeling-in of an interiority that recognizes itself in the other, thereby creating a measure of the self-same, must be seen not only as a profoundly humanist marker of self-recognition, but as the neurotypical marker par excellence of exclusion of all that cannot be recognized as self. It is this assumption that feeling is internal to the body that leads Baron-Cohen et al to assume that autistics are mind-blind and, by extension, have no empathy. For when Baron-Cohen says that autistics cannot "understand that others have beliefs, desires, intentions and perspectives that are different from one's own," what he seems to not be able to comprehend is that the definition excludes those modes of feeling proper to the neurodiverse. The concept of empathy simply cannot recognize experience expanded from the normative interiority of a neurotypical body-schema. When Baron-Cohen et al write that "individuals with MT [motor-touch synesthesia] have a *reduced* aptitude for social situations" (Baron-Cohen et al. 2016), this is always in reference to the "in-feeling" of empathy. A neurotypical viewpoint cannot recognize neurodiverse sociality precisely because it is always feeling-in, led by a model of interiority that presumes that feeling is only what a body contains, not what a body does in the worlding. There is no feeling-with in this account.

Sympathy—what things do when they shape each other—composes radically differently. Tuning to the force of a shaping, sympathy extends care toward the world, highlighting the world's own concern for experience unfolding. When Baron-Cohen et al insist that autistics fail to demonstrate empathy, what they are actually insisting is that we retain empathy as the baseline for experience in order to maintain the account of interiority that keeps body and world separate. This approach is based on the *The Karolinska Directed Emotional Faces Test* and the presupposition of identification that comes with it. To be empathetic is to be able to parse human expression according to the normative framework of facial expression. Despite the general knowledge that faces can contort to represent states required of them (much like the bestowing of eye-contact to pacify an interlocutor), despite the widely held experience that we can demonstrate interest we don't share by moving our facial muscles in ways that are normatively recognized, face-tests such as the *Karolinska Directed Emotional Faces Test* remain the marker for adherence to humanity by way of a model of empathy that will always exclude those who cannot be recognized and embraced as self-same.<sup>13</sup>

Empathy is a concept central to how whiteness operates. It requires an identificatory frame that can be mapped onto the other, keeping stable the hierarchy already in place. It requires the extraction from experience of all that does not conform to the choreography of human-human interaction. To be empathetic according to these standards is to be capable of cutting-out the feltness of the world activating a body beyond it-self. There is no inability to feel relation in neurodiverse sociality: indeed, in the

13. Any experiment that depends on a face test runs on neurotypical bias. Used in the creation of biometric data, the great danger of face tests and facial recognition software is that it upholds this bias. This should not be underestimated: *The Karolinska Directed Emotional Faces Test* and other similar tests are used in Artificial Intelligence. This has widespread effects not only with regard to autism and neurodiversity more widely, but in terms of black life and racism more broadly. Much research has shown that white people have difficulty recognizing (empathizing with) black faces. Findings of a recent study from North Carolina State University demonstrate the breadth of violence such normative standardization of experience can create. The experiment involved recruiting 40 university students (most of whom were white) training to become teachers, asking them to look at pictures of 20 black and white men and women, and then to identify one of five emotions the actors were showing (happiness, anger, surprise, sadness, or fear). Separately, those recruited for the experiment watched videos depicting both a black and a white boy in elementary



school. “One pair of videos had the boys doing something that could be seen as callous, with the black boy stepping on someone’s homework with muddy shoes and the white boy walking away with someone else’s handheld video game. The other two videos featured actions more likely to be seen as unintentionally insensitive: the black boy made a possibly rude comment about another student’s work, and the white boy put someone else’s work in the trash while cleaning up. For all the videos, the volunteers were asked to rate how hostile the boy was on a scale from one to five. In the photo task, the volunteers were consistently worse at guessing the emotions of both black men and women. *Overall, black faces were more than twice as likely to be misread than white faces. And when it came to anger, the misreading was even worse. Black faces were four times as likely to be mistakenly seen as angry.* With the video test, the volunteers similarly attributed more malice to black boys. On average, the hostility rating of black boys was 3.37, while the average rating of white boys was 2.25. And even in the scenarios where the boy seemingly meant no harm, the average point difference in rating between white and black boys stayed the same. [...] The study’s findings are some of the first to empirically show that a similar bias for seeing anger exists toward black women as well as men. But other qualitative research—relying on interviews and surveys of schoolchildren—has found black girls are more often singled out for not being ‘ladylike’ compared to white girls” (Cara 2018) (Halberstadt et al. 2018). My emphasis.

14. Many autistics have written important pieces on the consequences of the deficit model, amongst them Yergeau (2018), DJ Savarese in his article “Passive Plants” (2017) and Tito Mukhopadhyay in *The Mind Tree* (2007).

sympathetic force of worlding, a folding-in and through the world is at its height. All is felt-with. The problem for neurotypicality is that feeling-with cannot be contained within the limited category of an Empathy Quotient. Leaky, the sympathetic encounter with what things do when they shape each other takes over. This synesthetic feeling-with cannot be measured precisely because it cannot be located in a body precontained. It is of the world. Its feeling-with shapes the conditions of experience in the very same gesture that it shapes a body. Neurodiverse sociality might be described as a sensitivity to this shaping, a commitment to how the shaping orients, unmoors, disturbs any idea of a body as self-enclosed. Neurodiverse sociality lives in and through the force of the shaping, a shaping so deeply alive with the world that it continuously activates new fields of resonance at the edging-into-existence of body-worldings. The force of these body-worldings is what explodes when a body collapses under the weight of neurotypicality.<sup>14</sup>

Simon Baron-Cohen deserves no more of our time. I turn to his work only because it is prevalent in the field and therefore affects both the literature on autism and on synesthesia. To address the claims he makes, and then to move away from him, it is necessary to underscore the following: 1) all models that begin with a preconstituted body–schema and make human interaction the only marker for empathy are deeply erroneous; 2) empathy is a humanist construct that privileges a human-centered account of importance that is always organized around preexisting norms. These norms are based on neurotypicality; 3) synesthesia is never going to be a condition that can be adequately studied with an experimental method that begins with a neurotypical body schema. This is the case not only because the quantifications of sense that are the results of such studies are only the tip of the iceberg, but because all sensation occurs in complex overlaps. Sensing is not limited to sense–presentation. All sensing is amodal and amodal sensation can only be mapped, if it can be mapped, topologically. To address synesthesia, new modes of expression will continuously have to be invented. With them will come new modes of knowing; 4) autism tends to express itself not as a lack of feeling as Baron-Cohen argues, but as an overfeeling, as a feeling-with-the-world of such intensity that it is difficult to parse into the quotient scientists like Baron-Cohen use to measure humanity. I have defined this tendency of suprasensation or overfeeling as autistic perception, emphasizing that it exists on a continuum of neurodiversity but expresses itself most intensely in classical autism. As I have argued elsewhere, this intensity of feeling is relational to the core. It is alive with the more–than. We all stand to learn from a modality of feeling that is so ecstatically more–than human.

*Interlude—the smell of red*

Synesthesia exceeds the limit-condition described through cases like that of Daniel Tammet. While those who deploy complex mnemonic devices certainly exist, they are not the majority: there remains a strain in the literature that locates synesthesia on a continuum of perception, suggesting that all babies are synesthetic, a sensory capacity lost over a lifetime of being forced to parse experience and un-feel its overlap. If it is indeed so it follows that everyone is synesthetic, at least in potentia. All sensation carries with it the amodality of sensory tendencies crossing. I say this not following a neuroscientific study per se, but speaking from my own experience and the work I have done, over the last several years, as an artist engaging with color-smell synesthesia.

*photograph by Leslie Plumb*







*photograph by Leslie Plumb*



## THE SMELL OF RED—*SPICES OF THE AMERICAS* (*Encuentro—Montreal, 2004*)

In *The Smell of Red* (2014), the first of a series entitled *The Slow Color Project* (2014–ongoing), unbleached silk is dyed by participants using a selection of 18 spices from the Americas, all of which create shades of red when diluted in water. The proposition: to move the spice-dyes through tubes connected magnetically to the fabric to dye not with precision but with an abandon to the color-movement itself. More or less one color, many degrees of heat.

These proto-garments, cut in the continuation of my earlier work *Slow Clothes* (2004–2013), offer themselves to an architecting of body-worlding each day recomposed—their magnetic connections an offering to the shifting of their collective shaping—to facilitate an emergent smell-color constellation. As participants move the spice dyes through turkey basters, color attaches to the untreated silk organza, dripping onto sheets of paper layered on the ground, drawings emerging in palimpsest.

Soft smells, bitter, harsher, orange-to-red, the synesthetic experience is potent for those of us who smell color. For others perhaps less so, the reds in adjacency, the transit of color across the fabric onto the paper drop-sheet more compelling, a new sheet placed under the fabric each day over time thick with traces of red spice coloring.

The dissonance interests me, this uneasiness of smell-color overlap that is so often backgrounded in accounts of perceptual experience. Nowhere do I state this directly in relation to the artwork, however—the aim is not didactic. What is proposed is simply a synesthetic opportunity. Because for those of us who are synesthetic, all artworks, indeed all experiences, are in the complex overlap of senses intermingling. But for others in incipient synesthesia, operations of sense overlap such as proposed through the works of *The Slow Color Project* may indeed bring a perceptual experience to the fore that is otherwise deemphasized. For the aim of *The Slow Color Project*—of which *The Smell of Red* is a cornerstone, repeated with different spices over several iterations, is to touch the synesthetic potential in all experience, creating the conditions for a sensing that gives dissonance its place in experience, bringing to the fore the unparsable limits of the sensible.

**THE SMELL OF RED—CINNAMON***(Vancouver Art Gallery, 2015)**Erin Manning & Nataniel Stern*

In the second version, *The Smell of Red—Cinnamon* (2014, 2015), this time in collaboration with Nathaniel Stern, 50kg of cinnamon is mixed with sand in a large sandbox. On one end of the sandbox, 10kg of paprika is added, on the other, 10kg of cocoa. While the paprika and the cocoa do not visually stand out (especially after participants move through the space and use the hand-made broom to create pathways in the style of a Japanese Garden), for those sensitive to smell's dissonance, the accord produced in the differential of cinnamon with cocoa on the one side and paprika on the other is quite marked: on the paprika side, the smell is much sharper, spicier, while on the cocoa side it is softer, warmer.

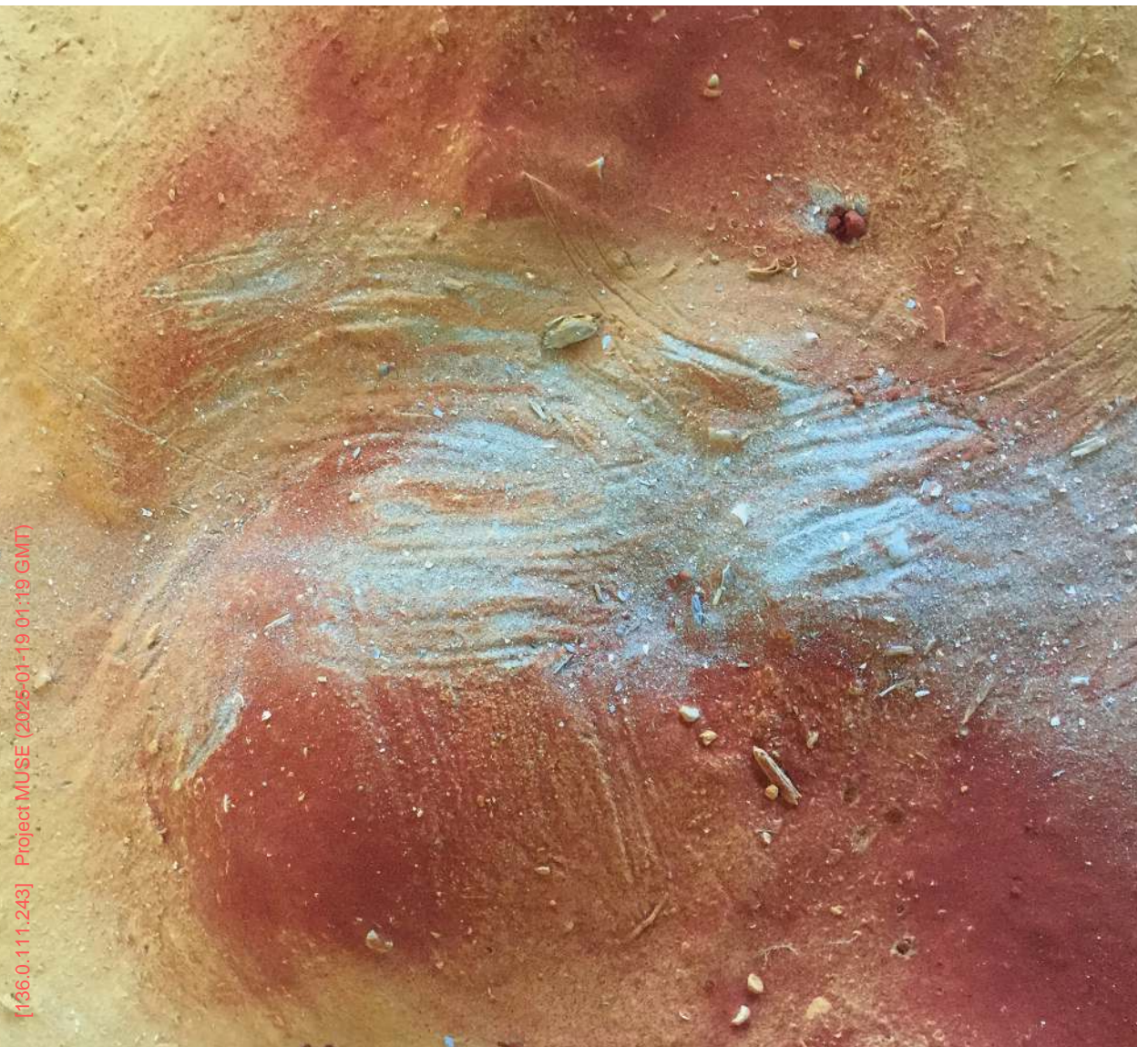
**To assist in the feltness of the quality of this differential, much thought is given to the slowing of a body: to move quickly is to be overwhelmed by the intensity of the cinnamon, a powerful and overdetermining smell. To emphasize duration in the synesthetic experience and facilitate different rhythms, three tornado machines are installed in the space. Each of these tornado machines produces a slightly differently shaped funnel of water vapor based on the strength and the speed of the fans that power it. Participants who move quickly through the space disturb the funnels, the air movement breaking them as they take form. The perceptual event of the funnel thus tunes participants' movements. Being encouraged to move more slowly across the cinnamon expanse brings with it a lingering with the shifting quality of smell. Again, no explicit mention is made of any of this—the hope is to create emergent conditions that facilitate a reorientation of the color–smell continuum, perceived less visually than synesthetically.**





What this means in practice is that the “smell of red” has little to do with the “color” red. The smell of red is closer to a feeling of a redness overwhelming the perceptual field. Might red under these circumstances tune to a sharpness, or a warmth, losing, for a moment, the contour of its determination? Because too often, in the less synesthetic encounter, color is mobilized by an object, weakening the force of its amodal operations as touch–tone of experience in the making.

*photograph by Nathaniel Stern*





*photograph by Brian Massumi*



## THE COLOR OF TIME (Art-Rue Tunis, 2017)

*An odor of color, a touch in the gaze, a taste in the texture.  
What is this quality that exceeds the first approach of an  
object, the quality that moves through the form of an object  
but pierces experience, opening the object to its force? How  
to speak of the duration that radiates beyond the object?*

In *The Color of Time* (2017), the work moves across spice (turmeric) and three hand-woven textiles. The textiles, woven by the last weavers in a dyeing trade in Tunisia, become the carriers of the color–smell continuum. Unwoven over several months, the work involves making felt the quality of the threads themselves. This ongoing work (begun in my earlier piece *Threadways*, 2016), explores the limits of perceptibility. Paradoxically, by pulling the threads and making the weave more visible, the textile itself, a material become so ubiquitous as to be unseen by many, becomes more perceptible, its qualities amplified by the transversality the absence reveals, a transversality emphasized through a diagonal resewing of the pulled threads in a subsequent re-weaving. Unlike in the earlier *Threadways*, where I angularly wove all the pulled threads back in, for *The Color of Time* only a portion of the thread was rewoven, the rest kept in bowls next to the large textiles, threads that would eventually become the palette of the next piece, *The Color of Time, Anarchive* (2018).

## THE COLOR OF RED—ANARCHIVE (*Spatiu Intact—Cluj*, 2018)

In *The Color of Time*, the turmeric was mixed with three mordants—soda ash, copper and citric acid. The mordants, typically used in dyeing processes to fasten the dye to the textile, work here to shift color: mixed with turmeric, soda ash turns the fabric red, copper turns it green and citric acid amplifies the yellow. Of course, as with earlier experiments in *The Slow Color Project*, smell remains largely unaltered. What this means in practice: a deep disorientation for the synesthete who feels the yellowing across the red-greening.

In anticipation of the possibility that no transformation of color across the weavings would occur over the 10-day exhibition, the top edges of the three textiles are dyed in advance, then hung over a large expanse covered in 100kg of turmeric, the mordants mixed with the spice where the textiles reach the ground. Without rain or a regular watering nothing would happen, and there was no telling, since I couldn't experiment in advance, how much water would be necessary to have an effect. The pots of thread are placed alongside the weavings, the white thread almost translucent in its metal carrier.

As it turns out, the weather needed no assistance. A deluge of rain threatened to wash away the turmeric, so powerful was the pounding storm that took over the medina of Tunis over the next seven days. Yellow became red became green tuned back to yellow became brown, the smell of the turmeric overwhelming through tempestuous storms. Dyed from below, the large textiles quickly took on the hues of the weather, colored as much, it seemed, by the rain mixing with the spice and mordants as by the wind blowing grains of spice across the large expanse.

It was ultimately the wind that dyed the thread housed in the metal pots, activating the force of a coloring visible in *The Color of Time*, *Anarchive*, the piece that continued the exploration of how the color-smell overlap produces dissonances of sense.

Whether through *The Color of Time* or its later anarchivè, what is foregrounded here is the force of minor gestures tuning an environment. What is experienced cannot be reduced to the willful intentionality of a determining participant: it is felt in the ecology. The proposition of *The Color of Time*, in alignment to the wider *Slow Color Project*, offers a brief window into what perhaps too often remains imperceptible, and, by extension, devalORIZED. If there is value in this project that aims to touch the texture of time, it is a value discovered in the complex ecology of practices that invent themselves, day by day, in the field of experience itself. To echo John Lee Clark in the passages to come, this work challenges the distantism too often imposed on experience, proposing experiential attunements in the proximity of their own dissonant conjugations.

*photograph by Brian Massumi*





*photograph by Brian Massumi*



**THE SMELL OF RED—PAPRIKA**  
*(Galateca Gallery Bucarest, 2018)*

*The Smell of Red—Paprika* (2018) brings together the slow pulling of thread with the overlay of mild Hungarian paprika, 5 vegetable dyes and 5 mordants, each present in the region of Eastern Europe in which the exhibition takes place. In the symphony of color that ensues, the fabric taking on hues from pink to red to yellow to blue, the unweaving of the 20 meters of fabric promises, over a sustained period of time, to be transduced into a thread sculpture hanging in the midst. At work here is a slow passage from form to its unweaving into shape recomposing, a promise more than a reality (to actually undertake this fully would take a year or so of sustained work). Paprika here is barely perceptible, its mildness overshadowed, even for a synesthete, by the array of color: dissonance pushed to its infrathin limit, color touched—tinged ever so slightly by a smell more environmental than local.

## WHAT THINGS DO WHEN THEY SHAPE EACH OTHER

All things living and dead cry out to me  
when I touch them. The dog, gasping for air,  
is drowning in ecstasy, its neck shouting  
Dig in, dig in. Slam me, slam me,  
demands one door while another asks to remain  
open. My wife again asks me  
how did I know just where and how  
to caress her. I can be too eager to listen:  
The scar here on my thumb is a gift  
from a cracked bowl that begged to be broken.

— John Lee Clark

John Lee Clark, to my knowledge, has never been tested for synesthesia.<sup>15</sup> How could he be, when the neurotypical assumption around the sensing body automatically discounts a DeafBlind person from mirror–touch synesthesia, or any other kind. What would there be to measure? Indeed, the neurotypical view of DeafBlindness suggests that there really is no life to be experienced without the senses of vision and hearing:

*The loss of both sight and hearing constitutes one of the severest disabilities known to human beings. Essentially, it deprives an individual of the two primary senses through which we acquire awareness of and information about the world around us, and it drastically limits effective communication and freedom of movement, which are necessary for full and active participation in society.*<sup>16</sup>

15. I am interested here less in the limit-cases of synesthesia than in the notion that synesthesia is a quality of perception that accompanies the perception of all infants. This approach challenges the deficit model of perception by inquiring not into what makes some bodies different but asking how perception shifts over a lifetime of organizing bodies into the baseline of a body schema based on neurotypicality. “Infants who were two and three months old showed significant shape-color associations. By eight months the preference was no longer pronounced, and in adults it was gone altogether” (Konnikova 2012). “But now it turns out that synesthetes might not belong to a club as exclusive as once thought. Their rich palette and vivid sensations might be accessible to us all. Even though not kin to Nabokov, we too could be reading our books in aquarelle. The under-examined complexities of ordinary perception, some neuroscientists and developmental psychologists contend, suggest that, like the Nabokovs, we all inhabit the synesthetic spectrum—we just need to look back in time, to when we were infants with developing brains” (Ravindran 2015). See also Maurer and Mondloch (2005).

16. Clark writes: “The final irony is that a DeafBlind man, the late Robert J. Smithdas, wrote these words. Many hearing and sighted people have expressed the same sentiments, but distantism is so pervasive that we all have internalized it. Helen Keller spoke of us as being imprisoned in the ‘double dungeon of darkness and silence’ and that we are ‘the loneliest people on Earth.’ She was being fanciful, but what is true is that the marginalization we experience is too often literal, involving physical margins. Think about it. Billions of people on this planet, and all of them agreeing that hearing and vision are required for leading full, normal lives. Billions of people of one mind that being DeafBlind must be an unendurable fate. Billions of dollars poured into the hope of medical cures. Distantism, that old serpent, held the whole world in its remote-control spell. And then our sisters from Seattle had the audacity to say that there’s a DeafBlind way. To say that hearing and vision are not necessary. To say that the only cure we need is each other. Can you feel the world shaking as it starts to, finally, come together?” (Clark 2017a).

**And yet. What about the synesthesia so clearly felt in these lines? What of the strength of feeling–felt?**

All things living and dead cry out to me  
 when I touch them. The dog, gasping for air,  
 is drowning in ecstasy, its neck shouting  
 Dig in, dig in. Slam me, slam me,  
 demands one door while another asks to remain  
 open. My wife again asks me  
 how did I know just where and how  
 to caress her. I can be too eager to listen:  
 The scar here on my thumb is a gift  
 from a cracked bowl that begged to be broken.

These words of Clark's are reminiscent of autistic Tito Mukhopadhyay's account of the mining tragedy in Raleigh County, West Virginia in 2010. Mukhopadhyay writes:

*It's true that when I think of the situation, there may be empathy. But my empathy would probably be towards the flashlight batteries of those trapped coal miners if there happens to be a selection on my part. Or my empathy would perhaps be toward the trapped air around those coal miners. There would be me watching through the eyes of the flashlight cell the utter hopelessness of those unfortunate miners as my last chemicals struggled to glow the faint bulb so that I didn't leave them dying in darkness. As the air around them, I would try to find a way to let myself squeeze every bit of oxygen I have to allow the doomed to breathe, for I am responsible for their doom. And while I found myself trapped, I would smell the burning rice being cooked with neglect in an earthen pot (Savarese 2010b).*



17. See Mukhopadhyay (2011). There are several passages in this book that expand on Mukhopadhyay's synesthesia, including the description of a woman's voice "that tasted like a tamarind pickle" (110) and a man's voice that "transformed into a long apple green with yellow strings" (200).

For Clark, touch carries a proximity that is also felt in Mukhopadhyay's account, though in Mukhopadhyay's case, the strong sensorial feeling-with is carried across senses in ways that more clearly make apparent what Brian Massumi would call a relational, or virtual body, a body of "pure variability" activated in the sensing (2017, 201–2). With Clark, the same force of relation is felt, but to register, the actual proximity of touch is added to the mix. That said, there is also in Clark's poem the activation of an emergent relation, a feeling-with that exceeds the actuality of the hands-on of touch. As with Mukhopadhyay, there is a sense of a more-than that accompanies the actual body, composing with the sensation that moves through that body.

A touch is here foregrounded, I want to suggest, that carries the more-than of sense. If synesthesia is the making-felt of experience as emergent across a field of relation that is itself infrasensing, and what is activated in both Clark and Mukhopadhyay's words is the feeling-with of experience itself, these are synesthetic experiences. This may be no surprise in relation to Mukhopadhyay, who has written extensively about his synesthesia.<sup>17</sup> But it might be a surprise that someone who can neither see nor hear sees-hears with the world's touching.

Listen again: “All things living and dead cry out to me / when I touch them,” writes Clark. A hearing in a touch. “My wife again asks me / how did I know just where and how / to caress her.” A seeing in a touch. And even more than that. A feeling toward a seeing–hearing touch, a knowing with the world in the relation. A virtual body felt and activated. In Massumi's words:

Every “single” sense experience is the envelopment in a dominant mode of appearance of an “infinitesimal” (virtual) continuation of other-sense experiences. Every perception is a composition of the full spectrum of experience, “practically” appearing as if it were disparate and disconnected from the continuum (2017, 195).

**Synesthesia is this experience intensified.**

In “The Art of the Relational Body: From Mirror-Touch to the Virtual Body,” Massumi writes: “Synesthetes do not add a deviation from the normal path of development. They just prune the same developmental path less fully” (194). The feeling–with of the world is never experienced consciously in all of its fullness. A certain parsing—or pruning, in Massumi's terms—is always necessary in order to subtract from the welter and distinguish one sensation or perception from another. This is not detrimental to experience: experience grows from the cuts that propel it in new directions. To parse is absolutely necessary. The question is, as Massumi also asks, what kind of parsing is at stake? And under what conditions? When Mukhopadhyay writes “I may select a fraction of the environment—say, ‘that shadow of a chair’ or ‘that door hinge over there’—and grow my opinions and ideas around it” he is composing with the wealth of potential in perception to extract its most lively expression. Poetry comes to Mukhopadhyay from this kind of pruning. “This creates a defense system for my over-stimulated visual

sense organ. Maybe poetry happens to grow around these things.”<sup>18</sup> In Clark's *Clamor*, the parsing tunes to the crack. “I can be too eager to listen: The scar here on my thumb is a gift from a cracked bowl that begged to be broken.”

### **Cracked bowls feel their way into the urgency of a touch.**

18. Tito Mukhopadhyay in “More Than a Thing to Ignore” (Savarese 2010b).

The touching evoked here is of two tonalities. It is both the touching of the hands-on feeling of the world, and the incipient touch the world calls forth. It is both the being in the world of feeling, and the feeling-with of the world emerging. In Mukhopadhyay we hear this through the personification of the oxygen, a personification which is not a making-human of the oxygen, but a more-than-human becoming-oxygen. What is foregrounded are the molecules struggling to counter their disappearance, the effects of this disappearance on the environment, and on those who most need it, the humans. All at once, each level of experience overlaps, the incipiency of one affecting the coming-into-actualization of the other. If mirror-touch synesthesia, or sight-touch synesthesia is about feeling-with, these are two examples of it, it seems to me, neither of which directly require either touch or vision.

Why call it mirror–touch synesthesia, then? With Massumi, I would agree that the nomenclature is deeply misleading. Building on research on mirror neurons—neurons that fire when an action is observed—the problem with mirror–touch synesthesia is that it seems incapable of imagining a world that begins with a feeling–with, a world that begins in the relational middle, in the virtual body.<sup>19</sup> As such, it carries the same implied bias of much work on mirror neurons, “that our perception is fundamentally a passive reception of an image constituting a private representation of the world, which, under normal conditions, is then cognitively corrected to purify it of illusions of perspective and other unthinking errors” (Massumi 2017, 192). In addition, the assumption that we ever perceive along single sensory routes is deeply erroneous:

**What normally pass for mono-sense experiences are, in fact, cross-modal fusions presented in a dominant sense. For example, to see the shape and texture of the object is to perceive, in vision, its potential feel in the hand. To feel that potential touch is to see the potential kinesthetic experience of walking towards the object. [...] It is well known that object vision cannot develop without movement. [...] Every “single” sense experience is the envelopment in a dominant mode of appearance of an “infinitesimal” (virtual) continuation of other–sense experiences. Every perception is a composition of the full spectrum of experience, “practically” appearing as if it were disparate and disconnected from the continuum (194).**

19. A more complete definition of mirror neurons is as follows: “A mirror neuron is a neuron that fires both when an animal acts and when the animal observes the same action performed by another. Thus, the neuron ‘mirrors’ the behavior of the other, as though the observer were itself acting.” Wikipedia, s.v. “Mirror Neuron,” 2017, [https://en.wikipedia.org/wiki/Mirror\\_neuron](https://en.wikipedia.org/wiki/Mirror_neuron).

Senses are felt on a continuum in an amodal register. The world is experienced across registers of sensation that bathe our bodies in complexity, a co-composition of world–bodying that changes the environment and the bodies composed by it at every turn.

John Lee Clark proposes the concept of distantism to counter the tendencies at the heart of these assumptions. Distantism, defined by Clark as the tendency to privilege mediation over direct perception, is what allows the neurotypical worldview to dominate, enforcing the parsing of the body from its environment, enabling a worldview that DeafBlind experience—to speak of just one discounted form of experience—is no experience at all. Whether we are speaking of the necessity to frame our academic knowledge based on objective data, or whether as DeafBlind people our engagement with the world is considered by others to be impossible without the mediation of a sighted intervenor, or whether we are expected to diminish our experience of the world as autistics by limiting our sensory experiences in order to “pass,” or whether our black, brown or indigenous bodies are expected to be less threatening by moving to rhythms (including rhythms of thought) neurotypical (and the list goes on), we are engaging in distantism.

For Clark, distantism promotes the impossibility of a DeafBlind feeling–with the world. In this limit–case of distantism, a lived experience of feeling–felt is denied.

*Researching our community’s history, I see that we have always been tactile. But hearing and sighted people have always attempted to keep our tactilehoods in check. We’ve always been denied access to some of the most basic human rights. What should we call this force of suppression? I propose to call it distantism (Clark 2017a).*

There is no distantism in the relational body. That is to say, distantism is not a quality of bodying: bodying is never parsable from the world with which it co-composes. “If one brings one's perception to the edge of release and inhabits the resurgent complexity, has one acted upon experience—or released oneself to be acted upon by it?” (Massumi 2017, 196). Perception on the edge is always already with the world in its unfolding. This witness, as mentioned above, can never be articulated in its fullness, but the feeling of it remains with us nonetheless. It is this feeling that moves in the lines of Clark and Mukhopadhyay's poetry, in the rhythm of the more-than-saying their feeling-with makes felt. Distantism is not how we perceive, it is how perception is imposed on us. It is how it is framed by Empathy Quotient tests. It is how it is made intelligible by baseline beliefs about the homogeneity of experience neurotypically parsed.

This has spacetime effects. In his piece “My Dream House: Some Thoughts on a DeafBlind Space,” Clark writes:

Now I'm going to discuss something very particular and perhaps difficult for non-DeafBlind people to fully grasp, so bear with me as I try to explain it. You know the saying “Out of sight, out of mind”? Well, for DeafBlind people everything that's out of sight remains in the mind's eye. We can relate to what Gaugin once said: “I shut my eyes in order to see.” This is why DeafBlind vision is often better than eyesight—we know where everything is and see them through walls, through doors, through drawer doors, through anything in front or under or below them. They aren't hidden. The bad news is that we also see, or imagine that we see, everything that's behind the walls, under the fridge, inside the gap between the floor and the bottom of the cabinet under the sink (Clark 2017b).

20. For a very interesting account of Deaf space with a particular focus on the dorsal, see Robert Sirvage's TEDx talk at Galaudet entitled "An Insight from Deaf Space" (Sirvage 2015). In this video presentation, he described the relational movement of signing Deaf couples walking together to demonstrate that their communication includes an attention to the incipient movement all around them. This is more than simple protection (watching someone's space and making sure they are safe). This is included in the communication itself. It is at the heart of the ethos of Deaf communication.

DeafBlind vision is topological. It is not restrained to the imposition of Cartesian perspective. Perception moves with the world, creating a lively image of its composition and altering that image, while retaining its complexity, through coming into contact with it. This account of DeafBlind spacetime is analogous to the account of the body–world continuum being put forward here. Bodies are not limited to their envelopes—they are extensive, moving—with the world in its transformation. Think of how the oxygen moves in Mukhopadhyay's account. There too, space is topological. To move with the world is to have bodied, and to have bodied is to have worlded. The world grows in the bodying.<sup>20</sup>

Qualities of experience overlap. There is no distance. Everything has an effect. Everything makes a difference. A body is this quality of multisense overlap in incipient contact with an infinity of sense potentials. These sense potentials are not located in a discrete sense, or in an object. They cannot be distilled to an ear or an eye, and cannot be located in a table or a marigold. They are always between, amodal, operating as thresholds of sensation that carry intensities themselves carried in the feeling. Following Lucy Blackman, and her emphasis on the verb carrying as a way of reminding ourselves that everything is always in movement, we might speak of feelings carrying the edge of consciousness, feelings not fully subtracted, not fully known—as-such, but nonetheless active and transformative, the bodying recomposed in the relation.

Massumi writes: "A determinate experiential form origamies into relief when an actual movement cuts its patterning and orientation into the vibratory intensity of the virtual body, drawing out a determinate stand-out expression of the potential it enfolds" (2017, 201). The virtual body is the topological shape feeling takes when it moves with the world. "The closest geometrical approximation to the hyperorder of the virtual body is not the extensive grid defined by the Cartesian coordinates. It is topological. Topology is the geometry of continuous deformation" (202).

Bodying, always topological, is regularly projected onto Cartesian coordinates, the Cartesian coordinates in turn back-gridded onto it. If it weren't, Clark wouldn't need a Dream House and it wouldn't be necessary to continuously emphasize how the body is not limited to the form it most visibly takes. To give the body the shape of an outline is to impose distantism on the body. Having done that, the further imposition of Cartesian coordinates on the geometries in which we live and move is an easy second operation. If we are a limited spacetime, a bounded envelope, if we are already coordinated by a template that organizes us, why wouldn't we create architectures that support that very kind of body schema?<sup>21</sup> And in that architecture, in those worlds, wouldn't it make sense that we should restrict our sensing to the coordinates it privileges? Of course, no architecture is fully capable of organising a body, but as Clark emphasizes, when you are DeafBlind, it can come close to negotiating for you the measure of your movement experience.

Clark's Dream House and Mukhopadhyay's account of the near-oxygenless mine remind us that the only people who take Cartesian coordinates and neurotypical limitations for granted are those who most easily fit in the category where the senses are nicely pruned and existence is organized according to preimposed restrictions. I am not saying that DeafBlind folks are neurodiverse in the sense of neurologically divergent. Some may well be, but I wouldn't want to generalize across a heterogeneous population. What I am saying is that their lived experience of topological spacetime and the effects it has on their bodying make them squarely non-neurotypical. In approximation of proximity, Deafblindness is on the continuum of the refrain, heard across these pages, that "all black life is neurodiverse life." It is time, perhaps, to think of another term that carries the force of the non-neurotypical without including the "neuro" as the marker of its difference. Because even autistics, who are most definitely neurodivergent, are diverse in an infinity of ways that expand from the neurological. This is why I use the adjective

21. The work of Arakawa and Gins is very much situated here, aligning itself as it does to the organism-that-persons and the notion that architecture is procedural, created in the living. See Gins and Arakawa (2002).

22. This is also a responsibility-before, a modality of touch I discussed more thoroughly in *Politics of Touch* (2007). Touch, in this way of living, is the emergent quality of the relation as it unfolds. This is different from a responsibility-for, which still suggests a hierarchy of interaction. I discuss this more at length in "Waltzing the Limit," in *Always More Than One* (2013).



neurodiverse—to remind us that we need a concept for a diversity within diversity that isn't measured by the standard of typicality. A diversity in diversity is one that senses fully and differentially, that lives and participates in a world still defining itself according to measures not yet in place. It includes populations historically excluded from the matrix of the human. It includes modes of life–living that exceed the human, that feel the more–than human world not as other but as with, in the being of relation.

In the mid 2000s, a group of DeafBlind activists began to invent and share a mode of communication that would allow them to take back control of their own complex fields of sensation and to collectively invent new ones. The hope, as Clark articulates it, was to be able to move from a distantist engagement with touch to a metatactile one. He writes:

*[A] response I often get when I interact with people [is] [h]ow did I know that their shoulder needed a massage, or that they were hungry or sad, or a spot on their arm was itchy? The owners of pets I meet are also amazed. Almost immediately I've found their pets' sweet spots. "That's right! She loves that. But how did you know?" I wasn't conscious of it. It was natural. So natural, in fact, that I didn't have a name for it, this skill that goes beyond just feeling texture, heft, shape, and temperature. I'd like to call it metatactile knowledge (Clark 2015).*

This “skill that goes beyond just feeling texture, heft, shape, and temperature” sounds a lot like the feeling–with Mukhopadhyay describes as the feeling–being of oxygen in the miners' space.<sup>22</sup> For the becoming–oxygen of the more–than–human is the way Mukhopadhyay enters into the touching of the environment. It is how he feels–with the texture, heft, shape and temperature of that singular ecology.

A modality that moves beyond but includes the hands-on gesture of touch, metatactile knowledge is the act of reaching-toward experience, allowing all co-composing bodily senses—including the kinesthetic, the proprioceptive, the vestibular—to connect to the incipencies of a welling environment. Encouraging the welling environment to “grow around him,” as Mukhopadhyay might say, enables the necessary parsing while facilitating the richest possible experience of sensation, or feeling-with.

When Clark speaks of the bowl asking to be touched he is resisting giving touch a primarily human inflection. To sense for him is to feel-with in the sense Whitehead gives to feeling, to be affected by it. This is metatactile sensing, to connect to the quality of an encounter as much as to the actual shape of the surface with which one comes into contact, to feel with the encounter, coming into contact with the complexity of relations the encounter calls forth.

Clark suggests that metatactile knowledge is a “protactile” mode of touch. The ProTactile movement celebrates the metatactile: it honors all kinds of tactility, including, I would hazard, the shaping of experience through the force of the relational, or virtual body. Foregrounding the importance for communication of a direct perception of relation, ProTactile encourages DeafBlind people and anyone who communicates with them to engage in continuous physical touch. This continued contact, they argue, allows them to finally become autonomous in their communication by being more attuned to the nuances of the nonlinguistic aspects of communication. Bringing out the full potential of TASL [Tactile American Sign Language], and allowing, as becomes necessary, for TASL to depart from the habits of VASL [Visual American Sign Language], which remains the mother tongue of many in the DeafBlind community, ProTactile is as much a linguistic as a cultural movement.<sup>23</sup> Claiming experience according to their own complex registers of sense, ProTactile teachers and students emphasize that it's high time for the DeafBlind to be teaching the DeafBlind.<sup>24</sup> As Christine Roschaert

23. With ProTactile, shifts have occurred with respect to “pointing to things in the environment, keeping track of conversations, describing things and events in terms of their size, shape, texture and positioning in space.” Christine Roschaert writes: “I interned at the Seattle Lighthouse for the Blind in Seattle in 2005 and became fast friends with Granda, who introduced me to the yet-unnamed Pro-Tactile (PT) method. I was taken aback and confused when she would start touching my body more, but then I started to understand that they were ‘added’ social cues to inform me if her head was nodding (tapping on my lap or shoulder), her hand traveling down from my left to right shoulder (she was moving from my left side to my right side), and there was that ‘aha’ PT moment one night when we sat outside on the porch and I wondered the perennial question: how do we let Deafblind people know we were truly laughing? I hated the usual sign of ‘ha ha’ in my hands when I tactiled with the person I was sharing my joke to. ‘Ha ha’ in my hand is akin to a hearing person bellowing out nothing but a fake laugh; a Deaf person slapping a hand on their lap and their expression shows they’re faking their jest. I experimented this PT move by placing aj’s hand on my throat and I laughed out loud, a true to heart Coco laugh and aj was shocked, still, then she tried it again. It was a true PT action, which included Deafblind in the ever-elusive world of pure joy” (Roschaert 2013).

24. John Lee Clark writes: “There are distantist modes of touch and there are protactile modes of touch. A distantist cannot truly teach or empower our children to live and learn as tactile people. Yet the field of education of DeafBlind children has never included us as teachers. Why is that?” (Clark 2017a).

describes it, ProTactile “broadens the spectrum of communication of the Deafblind outside of the standard Tactile with (American or any other international) Sign Language and several other manual methods” (Roschaert 2013).

ProTactile does not limit itself to a set of preexisting coordinates. It is not a system of gestures or touches. It is not a grid that can be used generally across myriad situations: “we want to emphasize that PT is not a set list of symbols with associated meanings, like ‘touch signals,”” Nuccio, the founder of ProTactile explains. ProTactile is a linguistic-cultural paradigm, and an ethos. “ProTactile philosophy is not just about ‘accessing’ communication; it affects all areas of life, including DeafBlind culture, politics, empowerment and language” (ProTactile 2016). Based on the strong belief, also prevalent in the Deaf community, that separating language and culture is both detrimental and impossible, ProTactile brings into action tendencies of listening and speaking that best address the singularity of DeafBlind experience. A mode of encounter grown from within the culture, ProTactile is a call for the DeafBlind community to reject distantism and embrace the incipency of feeling of a touch that reaches toward experience in the making.

Jelica Nuccio and AJ Granda describe the ethos of ProTactile this way: “The purpose of ProTactile philosophy is to support DeafBlind culture, language, interpersonal relationships, [and] politics” (ProTactile 2016). While touch has always played an important role in DeafBlind culture, and much communication already moves through touch,<sup>25</sup> the modality of touch foregrounded through intervenors tends toward distantism: “We can see in the record how distantism set in, and how hearing and sighted people wanted things to look right. It didn't look good when we went around ‘groping in the dark.’ It didn't look good for us to cluster together and have too much fun. Education meant we had to sit behind a desk” (Clark 2017a). With the intervenor, the practice is to create a communicational model that mediates touch. Touch is necessary, it is understood, but only at certain stages of the (mediated) encounter. “But when we go exploring or when we just exist, sighted and hearing people rush in to intervene. Can they help us? Please don't touch. They will be happy to describe it to us. They will guide us. No, they will get it for us. It's much easier that way. Hello! My name is Katie and I'm your Intervenor!” (ibid.).

For someone outside the DeafBlind community who cannot understand sign language, a ProTactile video provides little to no information-as-content. I cannot understand the details of what is being said. What I can perceive, however, is the force of relation: bodies are actively listening and composing together. The conversation has a shape, and that shape feels dynamic. A vitality affect is felt in the watching. Communication has clearly taken on an emergent quality, activating the virtual body of sensation in the encounter.

25. For an account of ProTactile from an ethnographic perspective, see Edwards (2015).

Vitality affects, as described by Daniel Stern, are emergent attunements felt in the relation. Stern speaks of an overlap of movement, time, force, space and intention/directionality as being at the heart of all vitality affects, or what he also calls vitality “forms” (2010, 4). These five elements must not be seen to work in isolation. Together they form a Gestalt, and that Gestalt has affective tone. Describing vitality affects, Stern speaks of

*the force, speed, and flow of a gesture; the timing and stress of a spoken phrase or even a word; the way one breaks into a smile or the time course of decomposing the smile; the manner of shifting position in a chair; the time course of lifting the eyebrows when interested and the duration of their lift; the shift and flight of a gaze; and the rush or tumble of thoughts. These are examples of the dynamic forms and dynamic experiences of everyday life. The scale is small, but that is where we live, and it makes up the matrix of experiencing other people and feeling their vitality (6).*

Vitality affects are “the felt experience of force—in movement—with a temporal contour, and a sense of aliveness, of going somewhere. They do not belong to any particular content. They are more form than content. They concern the ‘How,’ the manner, and the style, not the ‘What’ or the ‘Why’” (8).

ProTactile is a recognition that DeafBlind communication carries its own singular vitality affect, and that this needs to be valued. One aspect of this singularity is the emphasis on movement. Without sight and hearing to facilitate connection to the world, DeafBlind people have to connect more deeply to their kinesthetic and vestibular senses. They do this by doing what we all do: they move. In a description of ProTactile communication in process, Clark emphasizes the role movement plays. In *Where I Stand*, he writes:



As a DeafBlind person, standing for me is almost never about being still or in one place. Waiting for a bus, I would move without realizing it. My way of standing by moving around gives me more information about where I am. I'm taking in the scene, being present in the world, and prodding things a bit, exploring. And when two DeafBlind people talk to each other while standing, they always move around so that, after a while, they're standing where the other person was. Later on, they'd be back to their former positions, having circled around each other. This phenomenon is the result of each person shifting to the left to listen to the other person tactilely in a more comfortable way, hand following hand at a certain angle. I would always find myself emerging from an engrossing conversation standing in a different place (Clark 2014, loc. 116–120 of 2094).

Movement gives experience shape. Speaking about the primacy of movement in experience, Stern writes:

**[D]ynamic changes [...] occur constantly. Our respirations rise and fall over a cycle that repeats every three or four seconds. Our bodies are in almost constant motion: we move our mouth, twitch, touch our face, make small adjustments in head position and orientation, alter our facial expression, shift the direction of our gaze, adjust the muscular tone of our body position, whether standing, sitting, or lying (if awake). These processes go on even when not visible from the outside. Gestures and larger acts unfold in time. They change fluidly once an act has started. We can be conscious of any of this, or it can remain in peripheral awareness. In addition, with every movement there is proprioception, conscious or not (2010, 9).**

26. On the Deafhood foundation website, Deafhood is defined in the following way: Deafhood “is a way of gathering together and framing what we already know of Deaf culture, life, politics, etc. The framing process itself reveals ways in which we can move ‘beyond’ present Deaf cultural limitations resulting from the colonialism of Sign Language Peoples (SLP).” The concept was developed by Paddy Ladd in 1993.

How to well the chaos? “How do we not implode into the intensity, lost in the infinite virtual folds of potential experience?,” Massumi asks. His answer: “through movement. Every movement makes a cut—it brings certain elements of experience into relief, origamiing the continuum on the fly” (2017, 199). Movement is primary: it is through movement that incipient sensation catches the world's tendencies and moves into them, altering them in the passage.

Making movement primary by itself shatters distantism, for distantism requires position. It requires pre-choreographed placeholders that have already been given value, that have already been signaled as worthy of attention. This is why distantism is so central to the template of neurotypicality: it allows the value of experience to be mapped in advance. And this is why neurodiverse experience is so threatening: because it makes felt what would otherwise remain backgrounded, and gives it value, thereby revaluing value. New ways of living proliferate, and with them come new ways of knowing.

Movement is everywhere in the literature on ProTactile, itself called a movement. For too long, DeafBlind communication tended to be watered down to the most atrophied of communicational models: third party interpretation. Not only was this slow, the vitality affect of the communicational swarm was dampened by the stagnancy of the ordered back-and-forth. Little could be shared in the making. This mode of communication was closer to reporting than conversation. With ProTactile comes a liveliness in communication that allows the vitality affect of the conversation to be felt by all. This results in “a true sense of empowerment” (ProTactile 2016). As Nuccio says: “Deafhood<sup>26</sup> involves so many things—ASL, culture, who you are, your identity—that is exactly what PT is” (ProTactile 2016). This is not to say that facilitators are never necessary:

*I am not saying that we don't need sighted assistants. After all, we do live in a distantist society, and we should avail ourselves of distance-information readers. However, the way our SSP services are performed can be smothering. That's why a key concern of the Protactile movement is autonomy” (Clark 2017a).*

When intervenors become ProTactile, they shift from mediators to immediators. No longer is the emphasis on the neutrality of intervention. Metatactility, after all, is a collective action, an aliveness with the world that acknowledges the interpenetrating registers of experience.

Metatactile modes of touching put the dynamic shape back into DeafBlind communication: they make the vitality of the exchange felt to all who participate. This shape is continuously composing itself, as is the case in all communication. Reinventing what it might mean to communicate is key to this practice, and this includes an engagement with the cracks that cleave the containers of our experience.

There is much to learn from ProTactile's engagement with touch as an ethos that troubles distantism. The neurotypical template moves at the pace of distantism, opting for mediation at every turn. Working with a pre-existing matrix, it organizes, categorizes, prioritizes, grids, excludes. Justifying forms of knowledge acquisition, modes of self-presentation, moral categories, it shapes the contours of education. It organizes the vocabulary of sensation, of perception, of experience. When Suzi Guimond writes—"the world of deaf-blindness is far from a dead one. The world is constantly full of vibrations and smells and changes in temperature and air pressure. Many people seem to believe that without ears and eyes, the world becomes unmoving and still, but this couldn't be farther from the truth" (Cromer 2017)—she is speaking about a value-system predicated on neurotypical understandings of sensation. She is underscoring the ways in which the categorizing of experience in advance through neurotypical codes limits our capacity to imagine experience beyond the spatiality of distantism.

27. For a sustained encounter with the concept of immedia-  
tion, see Manning  
et al. (2019).



*photograph by Brian Massumi*

ProTactile *immediates* experience.<sup>27</sup> Moving—with experience in the making, the intervenor-as-mediator no longer has a role to play. Experience is lived, from the edges in. “The formative relation of co-implication in the same event is the changing ground of experience. If the virtual body can be said to represent anything, it is this relationality of the life of the body” (Massumi 2017, 204). ProTactile is a reaching—toward the world that makes felt how the world is already poised to meet the encounter, the relational body of communication alive with the force of the touch that will give it dynamic shape. For what occurs in the encounter of emergent communication can never be reduced to two enclosed, pre-constituted selves, one active, one passive. Nor is the encounter only human. “Society is not companionship or friendly association with others; it’s companionship or friendly association without others, in the absence of the other, in the exhaustion of relational individuality, in consent not to be a single being” (Moten 2016). The consent not to be a single being, Glissant’s resonant words, is a call to a synesthesia that honors the more-than of sense that includes the force of metatactility and vibrates with worlds verging toward consciousness. Not distantist, but not proximist either. In the field of minor sociality where relational bodies compose with the force of the incipiency of a touching beyond touch, ProTactile proposes a reaching—toward that touches the being of relation.

## WORKS CITED

Aspiegrl. 2011. "What Is It like to Have a Sensory Processing/Integration Disorder?" *Autism & Angels* (blog). 14 December. <https://aspiegrl.wordpress.com>.

Baggs, Amelia. 2007. *In My Language*. <https://www.youtube.com/watch?v=JnylM1hI2jc>.

Barnbaum, Deborah R. 2008. *The Ethics of Autism: Among Them, but Not of Them*. Bioethics and the Humanities. Bloomington: Indiana University Press.

Baron-Cohen, Simon, Emma Robson, Meng-Chuan Lai, and Carrie Allison. 2016. "Mirror-Touch Synesthesia Is Not Associated with Heightened Empathy, and Can Occur with Autism." Edited by Hidenori Yamasue. *PLOS ONE* 11 (8): e0160543. <https://doi.org/10.1371/journal.pone.0160543>.

Baron-Cohen, Simon, Daniel Bor, Jac Billington, and Julian E Asher. 2007. "Savant Memory in a Man with Color Form-Number Synesthesia and Asperger." *Journal of Consciousness Studies* 14 (9–10) (January): 237–51.

Burack, Jacob A., Grace Iarocci, Tara D. Flanagan, and Dermot M. Bowler. 2004. "On Mosaics and Melting Pots: Conceptual Considerations of Comparison and Matching Strategies." *Journal of Autism and Developmental Disorders* 34 (1): 65–73. <https://doi.org/10.1023/B:JADD.0000018076.90715.00>.

Buxton, Lix. 2016. "Experience: I See Words as Colors." *The Guardian*, 19 August.

Cara, Ed. 2018. "Study: Future Teachers Are Already Biased Against Black Children." *Gizmodo*, 2 July. <https://gizmodo.com/study-future-teachers-are-already-biased-against-black-1827298437>.

Cioffi, Maria Cristina, James W. Moore, and Michael J. Banissy. 2014. "What Can Mirror-Touch Synesthesia Tell Us about the Sense of Agency?" *Frontiers in Human Neuroscience* 8 (April). <https://doi.org/10.3389/fnhum.2014.00256>.

Clark, John Lee. 2017a. "Distantism." *Tumblr*, 3 August. <https://johnleeclark.tumblr.com/post/163762970913/distantism>.

Clark, John Lee. 2017b. "My Dream House: Some Thoughts on a DeafBlind Space." *Vision Loss Resources* (blog). <http://visionlossresources.org/blog/dbsm/my-dream-house-some-thoughts-on-a-deafblind-space>.

Clark, John Lee. 2015. "Metatactile Knowledge." *Tumblr*, 2 October. <https://johnleeclark.tumblr.com/post/130321809778/metatactile-knowledge>.



Clark, John Lee. 2014. *Where I Stand: On the Signing Community and My DeafBlind Experience*. Handtype Press. Kindle Edition.

Cromer, Stevie. 2017. "I Was Amazed." *Luna: Language Services*, 17 January. <https://luna360.com/i-was-amazed/>.

Easton, Anthony. 2016. "Why Do Autism Specialists Want to Stamp Out Autistic Traits?" *The Globe and Mail*, 29 January.

Edwards, Terra. 2015. "Bridging the Gap between DeafBlind Minds: Interactional and Social Foundations of Intention Attribution in the Seattle DeafBlind Community." *Frontiers in Psychology* 6 (October). <https://doi.org/10.3389/fpsyg.2015.01497>.

Gins, Madeline, and Shūsaku Arakawa. 2002. *Architectural Body*. Modern and Contemporary Poetics. Tuscaloosa: University of Alabama Press.

Halberstadt, Amy G., Vanessa L. Castro, Qiao Chu, Fantasy T. Lozada, and Calvin M. Sims. 2018. "Preservice Teachers' Racialized Emotion Recognition, Anger Bias, and Hostility Attributions." *Contemporary Educational Psychology* 54 (July): 125–38. <https://doi.org/10.1016/j.cedpsych.2018.06.004>.

Jewanski, Jörg, Sean A. Day, and Jamie Ward. 2009. "A Colorful Albino: The First Documented Case of Synesthesia, by Georg Tobias Ludwig Sachs in 1812." *Journal of the History of the Neurosciences* 18 (3): 293–303. <https://doi.org/10.1080/09647040802431946>.

Konnikova, Maria. 2012. "Infants Possess Intermingled Senses." *Scientific American*, 1 January. <https://www.scientificamerican.com/article/infant-kandinskys/>.

Maister, Lara, Michael J. Banissy, and Manos Tsakiris. 2013. "Mirror-Touch Synesthesia Changes Representations of Self-Identity." *Neuropsychologia* 51 (5): 802–8. <https://doi.org/10.1016/j.neuropsychologia.2013.01.020>.

Manning, Erin, Anna Munster, and Bodil Marie Stavning Thomsen, eds. 2019. *Immediation*. Open Humanities Press. <http://www.oopen.org/download?type=document&docid=1006644>.

Manning, Erin, and Brian Massumi. 2014. *Thought in the Act: Passages in the Ecology of Experience*. Minneapolis: University of Minnesota Press.

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

Manning, Erin. 2007. *Politics of Touch: Sense, Movement, Sovereignty*. Minneapolis: University of Minnesota Press.

Maurer, Daphne, and Catherine J. Mondloch. 2005. "Neonatal Synesthesia: A Reevaluation." In *Synesthesia: Perspectives from Cognitive Neuroscience*, edited by Lynn C. Robertson and Noam Sagiv, 193–213. New York: Oxford University Press.

Massumi, Brian. 2017. "The Art of the Relational Body: From Mirror-Touch to the Virtual Body." In *Mirror-Touch: Thresholds of Empathy with Art*, edited by Daria Martin, 191–209. Oxford: Oxford University Press, 2017.

McGlensey, Melissa. 2016. "16 People with Autism Describe Why Eye Contact Can Be Difficult." *The Mighty*, 3 February. <https://themighty.com/2016/02/why-eye-contact-can-be-difficult-for-people-with-autism/>.

Moten, Fred. 2016. "Bobby Lee's Hands." *Organize Your Own* (blog). 5 December. <https://organizeyourown.wordpress.com/2016/12/05/bobby-lees-hands-by-fred-moten/>.

Mottron, Laurent, Lucie Bouvet, Anna Bonnel, Fabienne Samson, Jacob A. Burack, Michelle Dawson, and Pamela Heaton. 2013. "Veridical Mapping in the Development of Exceptional Autistic Abilities." *Neuroscience & Biobehavioral Reviews* 37 (2): 209–28. <https://doi.org/10.1016/j.neubiorev.2012.11.016>.

Mottron, Laurent, Michelle Dawson, Isabelle Soulières, Benedicte Hubert, and Jake Burack. 2006. "Enhanced Perceptual Functioning in Autism: An Update, and Eight Principles of Autistic Perception." *Journal of Autism and Developmental Disorders* 36 (1): 27–43. <https://doi.org/10.1007/s10803-005-0040-7>.

Mukhopadhyay, Tito Rajarshi. 2011. *How Can I Talk If My Lips Don't Move: Inside My Autistic Mind*. New York: Arcade Publishing.

Mukhopadhyay, Tito Rajarshi. 2007. *The Mind Tree: A Miraculous Child Breaks the Silence of Autism*. New York: Riverhead Trade.

ProTactile.org. 2016. Welcome to ProTactile, the DeafBlind Way. <http://www.protactile.org/2016/>.

Ravindran, Shruti. 2015. "A Circus of the Senses." *Aeon*, January 20. <https://aeon.co/essays/are-we-all-born-with-a-talent-for-synaesthesia>.

Roschaert, Christine Amanda. 2013. "Pro-Tactile: The DeafBlind Way!!!" *Tactile the World* (blog), 18 February. <https://tactiletheworld.wordpress.com/2013/02/18/pro-tactile-the-deafblind-way/>.

Rubin, Sue. 2004. *Autism Is a World*. Video.

Savarese, D.J. 2017. "Passive Plants." *The Iowa Review* 47 (1). <https://iowareview.org/from-the-issue/volume-47-issue-1—spring-2017/passive-plants>.

- Savarese, Ralph James. 2018a. *See It Feelingly: Classic Novels, Autistic Readers, and the Schooling of a No-Good English Professor*. Thought in the Act. Durham: Duke University Press.
- Savarese, Ralph James. 2018b. "Reading Fiction with Temple Grandin: Yes, People with Autism Can Understand Literature." *Salon*, 2 September. <https://www.salon.com/2018/09/02/reading-fiction-with-temple-grandin-yes-autistic-people-can-understand-literature/>.
- Savarese, Ralph James. 2010a. "Toward a Postcolonial Neurology: Autism, Tito Mukhopadhyay, and a New Geo-poetics of the Body." *Journal of Literary & Cultural Disability Studies* 4, no. 3 (2010): 273–89. [muse.jhu.edu/article/398275](https://muse.jhu.edu/article/398275).
- Savarese, Ralph James. 2010b. "More Than a Thing to Ignore: An Interview with Tito Rajarshi Mukhopadhyay." *Disability Studies Quarterly* 30 (1). <https://doi.org/10.18061/dsq.v30i1.1056>.
- Simard-Meilleur, Andree-Anne, Armando Bertone, and Laurent Mottron. 2012. "Do Alterations in Low-level Visual and Auditory Processing Co-occur in Autistic Individuals?" In: *Oral Pre-sentation at the International Meeting for Autism Research (IMFAR)*, Toronto, Canada.
- Sirvage, Robert. 2015. "An Insight from DeafSpace." TEDx Talk at Gallaudet University. YouTube, 6 March. <https://www.youtube.com/watch?v=EPTrOO6EYCY>.
- Smith-Donohoe, Lauren. 2018. "Regarding Applied Behavioral Analysis (ABA) Therapy." *Lauren Smith Donohoe* (blog). 11 August. <https://laurensmithdonohoe.com/2018/08/11/regarding-applied-behavioral-analysis-aba-therapy/>.
- Stern, Daniel. 2010. *Forms of Vitality*. London: Oxford University Press.
- Thornton, Davi Johnson. 2011. *Brain Culture: Neuroscience and Popular Media*. New Brunswick: Rutgers University Press.
- University of Cambridge News. 2013. "Synesthesia Is More Common in Autism." <https://www.cam.ac.uk/research/news/synaesthesia-is-more-common-in-autism>.
- Whitehead, Alfred North. 1967. *Adventures of Ideas*. New York: Free Press.
- Wiskerke, Joost. 2018. "When Eye Contact Hurts—A Personal Account of a Common Autistic Trait." *Extraordinary Brains* (blog). 7 February. <https://www.extraordinarybrains.com/blog/2018/2/7/when-eye-contact-hurts>.
- Yergeau, Melanie. 2018. *Authoring Autism: On Rhetoric and Neurological Queerness*. Thought in the Act. Durham: Duke University Press.