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A/autisms:: a "queer labor of the incommensurate": holding onto the friction between different orientations towards autism in an early childhood research-creation project

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ABSTRACT

In this paper, I propose "A/autisms" as an organizing concept for considering the complex intersection of Autistic identity, autistic disability, and the contingency of the diagnosis "autism" in educational research. I draw from *Neuroqueer(ing) Noise*—my doctoral research-creation project in an integrated, mainstream early childhood classroom—to consider how this intersection might help us orient towards A/autisms as artists, researchers, and teachers. Moreover, I suggest that A/autisms might be understood as a methodology for reorienting toward the human subject in the ontological turn. This paper is of relevance to researchers in the field of critical autism studies, as well as educational researchers interested in "post"-humanism, feminist materialisms, and arts-based research.

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Introduction

A tension is evident in critical autism studies as to how to orient oneself as a researcher towards neurodivergence. The contingency of the category "autism", the importance of Autistic identity, and the material reality of autistic ability and disability mean that any singular tracing of autism is always problematic. Rather than understand these orientations as incommensurate, I draw from the *queer inhumanisms* and Karen Barad's account of *diffraction* to suggest that we might hold onto this tension as a site of queer *friction*. I propose illustrating this tension through my stylized writing of autism as: *A/autisms*. I draw from *Neuroqueer(ing) Noise*—my doctoral research-creation project in an integrated early childhood classroom in northern England—to consider how this tension might help us orient towards A/autisms as artists, researchers, and teachers. While ostensibly "about A/autisms", my activation of the queer inhumanisms in this paper has the potential to contribute to wider discussions in educational research of how to supplant the overrepresented Euro-Western figuration of the human without imposing a new unitary humanism or erasing the structures on which marginalized populations depend for survival. For this reason, this paper is of relevance to researchers in the field of critical autism studies, as well as educational researchers interested in "post"-humanism and feminist materialisms. Moreover, my use of research-creation as a research praxis is relevant to scholars interested in arts-based methods.

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Article overview

In the next section, I contextualize the in-school research-creation project that this paper pivots around. Following this, I introduce the theoretical background that informs my argument: First, I introduce Karen Barad's (2007) theorization of *diffraction;* I use diffraction to consider how the theoretical orientation a researcher takes towards A/autisms *matters* in the research context. I offer four such orientations here. Rather than relying on one orientation towards A/autisms, I extend Jasbir Puar's (2012) concept of *friction* to propose holding several in a frictional presupposition, as what José Esteban Muñoz (2015) calls a "necessary queer labor of the incommensurate" (p. 209). I then consider the implications of this friction by situating my argument within the *queer inhumanisms*. Following this discussion of my theoretical background, I introduce a series of three "vignettes" from my in-school project: I apply the organizing concept A/autisms to these vignettes to illustrate how it complicates both educational practice and research praxis. I conclude this paper by attending to the limitations of A/autisms as an organizing concept: I draw from Muñoz's theorization of queerness as "utopic" to consider how these limitations might themselves be considered generative.

Research method and context: neuroqueer(ing) noise

This paper pivots around *Neuroqueer(ing) Noise*, a music research-creation project in an inner-city primary school in northern England. The project explores the relationship between music composition and the instability of "neurotypicality", specifically at the intersection of racializing, Anglo-centric, and abling/disabling processes. I understand research-creation as the simultaneous intersection of art, research, and theory (Springgay, 2021; Truman, 2021; Truman & Springgay, 2015): note that research-creation as I understand it is not the *post hoc* artistic representation of qualitative research—for instance, singing an interview transcript—but rather the doing of the research and the theory *as* the making of art (Loveless, interviewed in Truman et al., 2019; Truman & Shannon, 2018). In this way, as Stephanie Springgay (interviewed in Truman et al., 2019) contends, "art instantiates theory". She writes: "[some works of art] are not metaphors, nor representations of theoretical concepts; rather, some works of art event concepts" (p. 226). I have elaborated in more detail on music composition as an approach to research-creation elsewhere, both with regards to educational research (Shannon, 2020) and with Sarah E. Truman as our electronica duo, *Oblique Curiosities* (Shannon & Truman, 2020; Truman & Shannon, 2018).

Neuroqueer(ing) Noise was a collaboration between a single class of thirty 5- and 6-year-old children, their classroom adults, and me. I am an electroacoustic musician and composer, a doctoral researcher, and a special education teacher. Rather than pre-determined research schedules, research-creation is shaped by a feminist, queer, crip, and anti-colonial orientation to method (Loveless, 2019; Shannon, 2020). Each episode began with a "proposition" that shaped the rest of the episode: usually, this took the form of a verbal statement in combination with an improvisation exercise and/or listening activity that activated that statement. Sometimes the propositions would be pre-planned by me in response to the previous workshop's activities. Sometimes, they were suggested by the school's staff. For instance, the teacher asked me if the bags of junk they had collected during the topic on materials could also be used in music. Sometimes, they would be suggested by children: for instance, in one episode, a discussion on home languages led to an electroacoustic composition that made use of home language statements.

The research class and wider school community are racially, linguistically, and neurologically diverse. Of the research class, 17% self-identify as Black African, 10% as Black British, 7% as Black Caribbean, 4% as Black European, 17% as Pakistani, 4% as Indian, 10% as East Asian, 20% as white Eastern European, and 13% as white British. Moreover, 70% of the cohort identify as speakers of one of forty-two different home languages. In the research cohort, this includes: Akan, Arabic, Chinese (Shandong and Lower-Yangzi Mandarins), Bengali, Czech, English, Finnish,

Romanian, Polish, Spanish, Turkish and Urdu. Most year groups in the school are subject to extreme mobility, with approximately 25% of the cohort moving on each academic year. 52% of young people in the ward live in poverty and the school's catchment area falls within the 5% most economically disadvantaged wards in the country. The setting is further complicated by the relative prosperity of a cluster of households bordering wealthier wards to the north-west. Like most (if not all) education settings in Britain, the class is neurodiverse: some children are identified as "neurotypical", while others are identified as autistic or otherwise neuroqueer.

The research-creation project was conducted as a series of weekly, hour-long music composition episodes between May 2018 and July 2019. I recorded each episode using a pair of Shure SM-58 microphones into music production software *(Digital Performer)*. Additionally, two children in each episode wore an *Empatica E4* electrodermal activity "sensor". Electrodermal activity—abbreviated as EDA, and sometimes known as galvanic skin response—is a measurement of changes in the skin's resistance to an electrical current. These changes in resistance are caused by the activation of sweat glands in response to stimuli (Boucsein et al., 2012; Filcikova & Mravec, 2016), which can indicate increases in the body(mind)'s state of arousal. There is a renewed interest in the findings of the life sciences in feminist ("new") material and "post"-human approaches to qualitative educational research, which includes the use of EDA: this research is sometimes called *biosocial research* (e.g. de Freitas, 2018). I will go on to further describe and problematize the use of EDA "sensors" later in the paper.

Consent

Each child's grown-up gave consent for their child to participate. I offered different levels of consent, including: whether or not to participate, whether or not to be audio recorded, and whether or not to wear an *Empatica E4*. I also delivered separate workshops to parents and children in which I explained what electrodermal activity is, in order to inform their consent (the children's workshops are discussed in more detail later in this paper). I also facilitated ongoing consent by running each episode twice: children in the research class could refuse to take part in the research by walking through the adjoining door into the grade's second class, who would later participate in a "research free" but otherwise identical music episode. This also kept provision equitable across both classes in the grade. Children who chose to wear an *Empatica E4* were free to remove it at any point, and so they were sometimes worn by 2 or 3 participants in each episode. Having briefly summarized the research context and methods, in the next section I will introduce the theoretical resources through which I applied these methods.

Theoretical background

In this section, I propose *A/autisms* as an organizing concept in researching with autistic people. In formulating A/autisms, I am indebted to a similar move within D/deaf studies, whereby the lower-case "d" deaf indicates the state of non-hearing, while the upper-case "D" indicates the rich linguistic and cultural identity of Deafness.

As I intimated at the start of this paper, a tension is evident in critical autism studies as to how to orient oneself as a researcher towards neurodivergence. There are multiple yet incommensurate ways to trace what "autism" is: autisms (lower-case) are pathologizing labels whose problematic conditions of emergence in the work of Leo Kanner, Ole Lovaas, and Hans Asperger (amongst others) relies on racializing and gendering eugenic logics (Gibson & Douglas, 2018; McGuire, 2016); *and* autisms (lower-case a) are invisible disabilities that doubly erase those living at the intersection of racializing, gendering and disabling logics (Çelik, 2017; Saxe, 2017); *and* Autisms (upper-case A) are fabulous neuroqueer/neurodivergent counter-identities (Woods et al.,

2018); *and* autisms (lower-case a) are neuroqueer disruptions of identity (Egner, 2019); *and … and … and …* In this paper, I call these incommensurate perspectives "orientations".

Establishing any singular orientation towards autism is problematic. This is particularly true when writing from my own positionality as a neurotypical, cis-, gay but "straight-passing(ish)", white male: In homonormative times, writing in solidarity with neurological queerness requires great care. As Dan Goodley (2016) writes: "Any debate, analytical intervention or rhetorical interrogation of the many faces of autism has the potential to upset somebody" (p. 147). Yet, and while agreeing with Goodley, I worry that "upset" undersells the importance of orientation.

The importance of orientation: diffraction and four A/autisms

I am drawn here to consider feminist theoretical physicist Karen Barad's (2007) description of *diffraction*.[1] Diffraction is what happens to light when it passes through a pair of holes in a filter. The two streams of light interact as they emerge from the filter: canceling each other out in some places and amplifying each other elsewhere. This is called an *interference pattern.* The type of interference pattern differs based on how the experiment is set up: setting up the experiment to materialize the particle-like properties of light simultaneously prevents the materialization of its wave-like properties. Conversely, setting up the experiment to materialize the wave-like properties of light prevents the materialization of its particle-like properties. In other words, Barad contends that the theoretical orientation to the research apparatus partially constitutes the 'thing' being researched.

In describing diffraction as a methodological tool, Barad is not writing metaphorically: the theoretical orientation of the researcher to the research encounter quite literally materializes one interference pattern, while simultaneously preventing the materialization of any other. In this way, establishing any singular orientation towards autism traces a particular pattern: autism as contingent, Autism as counter- or dis-identity, or autism as disability. But in establishing that orientation, any other pattern is *actively* dematerialized in the research encounter (i.e. prevented from mattering). In this way, to orient is to erase, multiple-y so when researching in the early childhood classroom, with populations already subject to the multiplying invisibility experienced at the intersection of neurodivergence, racialization, and girlhood. In short: orientations *matter.*

In this paper, I consider four orientations towards autism. The first understands autisms (lower-case "a") as loose, contingent, explanatory frameworks that are draped over body(mind)s, and by which a set of divergent behaviors are speciated as a "type" of person (Fitzgerald, 2017). The emergence of autism in the new child development paradigm—and so alongside queerphobic and racializing logics—has been extensively problematized.[2] For instance, Anne McGuire (2016) contends that the possibility of neurodivergence relies on early twentieth-century concerns of racial purity. Similarly, Gibson and Douglas (2018) describe the co-constitutive emergence of autism with the Feminine Boys Project in the work of Ole Ivar Lovaas. This has led some to question whether the diagnosis is "valid", or at the very least to wonder "what" is being diagnosed (Fitzgerald, 2017; Runswick-Cole et al., 2016).

The second orientation towards autism I want to consider relates to the reality of autistic disability: In short, in deconstructing autisms, I think we need to be careful "what we wish for". As non- or intermittently apparent disabilities (Price, 2015), autisms and autistic people are often erased in discussions of disability, compounding the erasure disabled people are already subject to. In this way, autistic people are elided from neuronormative doxa, both in abled and disabled spaces. Moreover, we should be careful from whom diagnosis (no matter how "invalid") is routinely withheld: or in Barad's terms, whose autism we try to dematerialize. For instance, in both the UK and North America, Black students remain underrepresented in autism diagnoses, yet overrepresented for communication and behavioral differences. Girls also remain underrepresented by 4:1 in the UK. In this way, autisms are constituted by diagnostic criteria that emerged

out of an otherwise "neutral" (white, middle-class, physically-abled, cis-male) subject (Çelik, 2017). Moreover, diagnosis and support are most often withheld from the same body(mind)s on whom unabashed neurodivergence most often plays out with violent consequences. For Jasbir Puar (2017), this debilitation—of disability as experienced at its intersection with racializing and gendering logics—unsettles the notion of disability and ability as binary, sedimented states. Instead, Puar contends that disability should be understood as a constant oscillation: instead of asking "are you disabled?" we should ask, moment-by-moment, "how abled are you? and how disabled are you?" (p. 56). In this way, much as how "queer" at its least capacious and least disruptive often comes to be synonymous with white male homosexuality, the overrepresentation of white middle-class males in autism diagnoses fails to account for the debilitation evident at its intersection with other patterns of marginalization. In other words, we shouldn't pretend that the material reality of autistic disability is any less real for being "made-up" (Clare, 2017, p. 142). Nor should we neglect to consider how that reality multiplies and complicates other patterns of marginalization.

The third and fourth orientations towards autism I want to consider in this paper relate to autistic identity. Autisms (upper-case "A") are disruptive sites of what Muñoz (1999) might call *dis-identification*. Dis-identification resists the notion of stable identity, whether the dominant, normative identity, or resistant forms of counter-identity. In this way, orienting towards autisms as a dis-identification can unsettle the whole notion of neurotypicality and, indeed, identity. For instance, M. Remi Yergeau (2018) considers the supposed involition of autistic stimming to reframe how we frame rhetoric. In many ways, I might also suggest that the fact that A/autisms are traced through behavioral checklists—particularly checklists with such woolly borders that most people could probably identify something autistic about themself at some point—allows us to think about the leakage by which nobody is absolutely (neuro)typical.

This subversive streak is integral to *crip* and *neuroqueer* theories, which seek simultaneously to establish disability and ability as emerging in relations (rather than inside the disabled person's body) while holding onto the politics of Disability identity. It is this politics that I turn to now: Autistic (upper-case "A") identity is a fabulous site of cultural production and counter-identarian political activism (Woods et al., 2018). As Yergeau (2018) writes:

> clinical exegeses of autism pinpoint many of the core markers of what might be termed identity, in all of identity's fluidity and fluctuations—affect, intent, concept of self, concept of others, empathy, sensation, cognition, motor coordination, mental processings, interests and hobbies, relationality, communication, and so on. If these are the items my doctor terms autism, how am I not to say that autism is me? (p. 132)

In this way, Yergeau understands their autism as identity.[3] So far so obvious. But I want to dwell with this complexity a moment longer. As Muñoz (1999) contends: "disidentification is not an appropriate strategy for all minoritarian subjects all of the time" (loc. 3307). For Muñoz, minoritarian subjects rely on identarian or counter-identarian support networks. Similarly, Puar (2007, 2017) critiques the privilege—financial security, protection *from* rather than subjection *to* state violence—that allows some (white) queer subjects to flaunt failure and refuse to "identify" or counter-identify. Autistics are not widely valued in the ways that (some) queer and (some) D/deaf individuals have come to be. This is evident, for instance, in the decisions across Europe to ban gay conversion therapies while continuing (or even beginning) to invest in ABA. For this reason, in this moment, I think we need to reiterate Autistic (upper-case "A") identity, even if it's in a more counter-identarian, less disruptive (arguably "less queer") form.

There has been heated discussion in critical autism studies across the four orientations I've traced above. Orienting along any one line of inquiry forecloses the possibility of any other A/autism materializing in the research encounter. For instance, discussion of the contingency of an A/autisms diagnosis could be understood as a threat to A/autistic identity (Woods et al., 2018). Similarly, the rejection of "disability" is easiest for those most able to procure support (Bentley, 2017), or else to pass some non-disabled aspect of themselves (Puar, 2017). Rather than an

oppositional clash, Puar (2012) suggests that rubbing incommensurate frameworks together might produce *friction*. In this way, I might suggest that the tension between the different orientations towards autism I have established here might be thought of as productive rather than problematic. Adding to Puar's thinking around friction, I suggest that—in the same way that friction as a physical force is produced by the underlying electromagnetic *attraction* between the objects rubbed together—friction between concepts is generative precisely because of some underlying attraction. In this way, my stylization of *A/autisms* is intended to indicate a productive friction: rubbing counter- and dis-identity together with contingency and disability is productive because of their simultaneous mutual incommensurability and their mutual attraction.

Similarly, Barad's (2007) description of an interference pattern—the effects of the diffraction experiment described above—does not emphasize difference as the "difference-between" the two waves or particle streams of light. Rather, Barad emphasizes what is generated by those differences. She writes: "A diffraction pattern does not map where differences appear, but rather maps where the *effects* of difference appear" (p. 300, my emphasis). In other words, diffraction indicates the inability to know the world within any singular frame: moreover, it is a mattering process by which the difference between phenomena is productive, because the orientation traced in the research encounter materializes a different world. *Friction*, then, holds the effects generated by difference in a productive tension by *materialising* the effects of multiple orientations simultaneously. Importantly, this is only possible because of some underlying attraction between those orientations: or what Lee Edelman (in Berlant & Edelman, 2019) might call a processes of figuring the "underlying unity" in order to banish the "digitalizing *or*" (loc. 1090).

The risk of misorientation is wrapped up in what Shannon and Truman (2020) might term a *politics of approach,* or "the ethico-political perspective a methodology implies" (p. 3). Orienting towards A/autisms means attending to the ethics of what you are simultaneously orienting away from: or, attending to what you will cause to matter (or materialize) and what you will prevent from mattering (or dematerialize). In many ways, my rubbing together of four orientations toward A/autisms risks a further dematerialization of those myriad autisms I haven't brought along. While the four orientations I'm writing through here seem to trace some of the more common orientations towards A/autisms in the literature, I remain cautious of joining the ranks of neurotypical white men deciding once-and-for-all what autism is or could be. It is my hope, then, that cutting around these four orientations makes this discussion manageable in such a short piece, but without closing down A/autisms' intrinsic capaciousness (which is the whole point of the paper!). In the next section of this paper, I think about the tension I've identified here within a wider tension in critical uptake of feminist material and "post"-human orientations to the human.

Between the universalizing and the locating: the queer inhumanisms

The tension of incommensurate A/autisms that I've described here is similarly evident in qualitative educational research that draws from theoretical resources collated as part of the "ontological turn": these resources include "post"-humanism and the feminist materialisms. Researchers are interested in these methodological turns for how they might: attend to how subjectivity is shaped as part of a more-than-human network; engage with findings from the physical and life sciences; decenter language and representation in favor of affect and more-than-representation; and de-center European conceptualizations of the objective (white, male) organizing researcher (e.g. Douglas et al., this issue; Shannon & Truman, 2020; Snaza et al., 2016; Truman, 2019a). Barad's work, thought-with throughout this paper, is often considered a key text in feminist materialist scholarship. Yet, some queer, anti-colonial, and critical race and disability studies scholars remain cautious of these efforts. Luciano and Chen (2015) summarize this concern as a tension between "universalizing and locating impulses" (p. 192): impulses that seek

simultaneously to de-center (Man-as-)human experience without establishing a new unitary "post"-human that continues to erase the specificity of marginalized experience (King, 2019; Livingstone & Puar, 2011).

Similarly, some critical theorists have questioned the perversity of asking racialized and disabled people who've always been excluded from the category of the human to simply "let go" of it (e.g. Goodley & Runswick-Cole, 2016; Livingstone & Puar, 2011). Still others have looked to the long history of alternatives to European Man already proposed by scholars in critical scholarship (e.g. Jackson, 2013; Keeling, 2007; Shildrick, 2015; Weheliye, 2014), and wondered "What and crucially *whose* conception of humanity are we moving beyond?" (Jackson, 2015, p. 215, italics in original). In this way, the friction inherent in "autism" might offer a way of approaching the tension between "universalizing and locating impulses" in the ontological turn: after Erin Manning (2016), "Not to *solve* problems, or to resolve questions, but to illuminate regions of thought through which problems-without-solutions can be intuited" (p. 10).

I understand the queer inhumanisms as vectors within queer, critical race, and critical disability studies that propose more complex, multi-faceted versions of the human (Luciano & Chen, 2015; Muñoz, 2015). Rather than abandon assimilation into "human life"—a gesture that many disabled people and allies might reasonably reject—the "in" of the inhuman "emphasizes both difference and intimacy" (Truman, 2019b, p. 113): in this way, it both desires identification with the human while seeking to unsettle it. As a mode of queer inhumanisms, José Esteban Muñoz (2019) might understand the rubbing together of incommensurate A/autisms I've proposed here as seeking to "reconstruct partial or dangerously incomplete objects that structure our reality into a workable sense of wholeness" (loc. 4028): in other words, as seeking to glean something from the incommensurate. For Muñoz (2009), "queer" at its queerest should always be kept on the horizon: if we were ever to allow it to arrive and sediment and *know what it was,* we would just establish another mode of unitary humanism. In this way, then, I hope the frictional uptake of multiple orientations towards A/autisms I've proposed in this paper is "utopic" (Muñoz, 2009): a continuous, capacious queering that refuses sedimentation and leaves us open to those modes of (neuro)queerness we have yet to encounter. Moreover, thinking A/autisms frictionally allows us to account for the ways in which A/autistic individuals might have to relate differently to A/autisms moment-by-moment throughout their lives: It complicates notions of the differences *between* incommensurate orientations towards A/autisms, of how A/autisms might be contingent, *or* counter-identarian, *or* dis-identarian, *or* disabling, by taking queer delight in the fact that it's usually all four (and more!). It is a queer inhuman orientation that both yearns for the human and refuses it, holding onto the violence of maintaining the "human" and so accounting for the specificity of neurodivergent experience, while unsettling neuronormative notions of what it means to be human. In this way, it is an ethico-political imperative—what Muñoz (2015) might term a "necessary queer labor of the incommensurate" (p. 209)—because without it we run the risk of foreclosing what A/autisms in the classroom is instead of what it can be, can mean, or can do.

Summary: A/autisms as a queer labor of the incommensurate

In this paper so far, I have suggested that there is a generative tension (or friction) between the irreconcilable orientations often adopted towards A/autisms in educational research. The four orientations I have proposed are:

1. autistic ability and disability;
2. the contingency and problematics of the category "autism";
3. the fabulous (neuro)queerness of autistic counter-identity;
4. autism's potential to disruptively (neuro)queer identity.

For the remainder of this paper, I focus on three vignettes from my in-school research-creation project, *Neuroqueer(ing) Noise*. I explicate how the project materialized the effects of A/autisms differently, when thought at the intersection of these four orientations.

A/autisms in three vignettes

In this section, I explore three vignettes from my in-school research-creation project. In the first vignette, I consider how the project deployed electrodermal activity gizmos in order to provoke the contingency of the category "autism" (orientation 2, in my list above). In the second vignette, I consider how A/autistic failure in the classroom is counter-identarian (orientation 3), but still a material configuration of ability and disability, and subject to disablement (orientation 1). In the third and final vignette, I consider how a series of experiments with synesthesia provoke the contingency of the category "autism" (orientation 2), while also frictionally reifying counter-identity (orientation 3) and dis-identifying the whole notion of identity (orientation 4).

Vignette 1: contingency, absurdity and the electrodermal gizmos

As described in the introduction to this paper, *Neuroqueer(ing) Noise* used electrodermal activity (EDA) generating devices ("gizmos") as part of the composition process. In the first part of my discussion of this vignette, I consider how these gizmos are shaped through dominant doxa of autism. Following this, I will demonstrate how those doxa might be unsettled by deliberately provoking the contingency of the category "autism".

What is EDA?

EDA is a measure of the body(mind)'s resistance to an electrical current generated between a pair of electrodes placed on the skin. Decreases in the skin's resistance to this electrical current can imply an increase in the body(mind)'s state of arousal. This decrease is due to the autonomic nervous system, which increases perspiration in response to heightened emotion or stress (thereby reducing resistance). This arousal is not valent: it does not attribute how "positive" or "negative" the arousal is. For instance, Colver and El-Alayli (2016) identify electrodermal responses to moments of frisson (i.e. heightened emotion) in pieces of music. Measurements of electrodermal activity are frequently described as "non-invasive" in the literature. For this reason, I reiterate again here that EDA is not a measure of a pre-existing current, but instead a measure of the body(mind)'s resistance to a current generated by the gizmo.

EDA and A/autisms

I employed electrodermal gizmos in the in-school project in order to map against the swelling body of research that establishes a link between neurodivergence and atypical autonomic responses. Although the findings of this research are quite confused and contradictory, there remains a determination that the neurodivergent (and particularly A/autistic) body(mind) must be autonomically "other". EDA is a particularly common method of exploring this "otherness": quite why EDA is so popular is complicated, although I would contend that it is at least in part due to the doxa that understand A/autistics as already closer to the technical and the technological (McGuire, 2016; Nadesan, 2008), or the robotic (Yergeau, 2018), and so to the electrical.[4] Moreover, others have suggested that EDA might be useful in predicting and preventing moments of crisis, or "meltdowns" (e.g. Baker et al., 2018; Cappadocia et al., 2009; Panju et al., 2015): Again, this seems due in part to doxa that narrate A/autistics as computational or robotic, or what Yergeau (2018) describes as emphasizing the "auto-" prefix in "autism": the A/autistic narrated as an A/auto-maton. In other words, use of electrodermal gizmos to indicate an

oncoming crisis assumes the A/autistic is like an "If This Then That" algorithm. In this way, electrodermal gizmos (when used as a preventative technology) are very much aligned with the continuing history of using electricity and electrocution to control neurodivergent body(mind)s (Gibson & Douglas, 2018). This is also why I avoid the neutral-sounding word "sensor": the "gizmo" isn't just reading something off the autistic body(mind); it's actively doing something *to* the body(mind) so as to intervene in it. In this way, the gizmos seem to enact Ruha Benjamin's (2019) account of how oppressive logics come to be built into technology. Benjamin calls this process the "New Jim Code", which she defines as the "*employment of new technologies that reflect and reproduce existing inequities but that are promoted and perceived as more objective or progressive then the discriminatory systems of a previous era*" (pp. 5–6, italics in original). Benjamin describes the myriad ways in which technology and algorithms propagate raciality, often under the veneer of "color blindness". As she points out, "tech designers encode judgements into technical systems but claim that the racist results of their designs are entirely exterior to the coding process" (p. 12). In this way, then, similar to how the "New Jim Code" activates and covertly reinforces racializing logics, the electrodermal gizmos activate and covertly reinforce neuro-ableist logics that frame A/autistic people as automaton-like, lacking agency, and akin to the technological. This has implications for how autism is materialized in the research encounter. Earlier in this paper, I explained that Barad's (2007) concept of diffraction describes how the theoretical orientation brought to a research apparatus shapes how the experiment unfolds, and so unfolds matter differently than if a different theoretical orientation was used. Positivist and biocentric use of electrodermal gizmos materializes a "face" of autism that shapes the autistic as lacking agency, automaton-like, and akin to the technological. As I will explain in the next section, my doctoral in-school research project *Neuroqueer(ing) Noise* deploys electrodermal gizmos as a way to map against this doxa (and its materialization): the vignettes I explore refuse EDA's bounded and biocentric understanding of the A/autistic body(mind), both as it relates to researching with EDA and the doxa that inform that research. In the next section, I'll explain how my project enacted this refusal through a methodological commitment to absurdity.

Absurdity as a methodological commitment (or "how did I use EDA in neuroqueering noise?")

The first composition project we completed as part of the wider *Neuroqueer(ing) Noise* study was an exploration of what EDA is and what it measures. I thought up this composition project myself, as a way of informing the children's consent to wear the electrodermal gizmos. I began the first episode by wearing one of the gizmos. I projected its signal onto the interactive whiteboard through my cell phone. The EDA data is presented on a line graph, which resembles an ECG or audio waveform. An autonomic response to an arousing event is illustrated on the line graph as a quick peak followed by a very gentle tapering off. I demonstrated to the children how moments of agitation or nervousness caused peaks in the signal. (Fortunately, it had been almost a year since I last taught a group of children, and so I was plenty nervous already.)

Rapid peaks and gentle troughs in the EDA line graph indicate an autonomic response to an arousing event. In typical EDA research, the researcher usually initiates these arousing events, so that they can measure how arousing that event is. For this reason, the researcher must carefully control the research environment in order to limit exposure to non-researcher-initiated events. However, in analysis of EDA data, peaks and troughs can appear where an arousing event was not initiated by the researcher. Moreover, they sometimes appear when no arousing event is determinable at all: these events are treated as noise. Simultaneously, the devices must be treated with great care in order to get a clear signal: cold (below 22 °C), heat (above 24 °C), physiological actions such as "coughing, deep respiratory movements … , sneezes and excessive talking" (Braithwaite et al., 2015, p. 41), or movement of any kind disturb the position of the electrodes and make the signal illegible. I explained these limitations to the children. I jumped

about, sang, yelled, and fake-sneezed (these were pre-COVID days), and pointed out how erratic and distorted the linegraph had become. We improvised along with the linegraph on hand-held percussion, correlating increases in signal with energetic playing, and the leveling-out or tapering-off with calmer playing. This improvisation did two things: first, it taught the children what the increases and decreases "meant" in terms of arousal. However, it also resisted the biocentrism of the electrodermal gizmos: rather than reading researcher-initiated events off the body(-mind), this episode began to reconfigure the bio as something messier and porous to the social: and, most importantly, as something that could be disrupted.

In a later session, I introduced *Walking Scoring Devices:* these devices were activated with the same methodological commitment to absurdity as the electrodermal gizmos. Over the remainder of this paragraph, I'll explain how that commitment shaped the creation of the *Walking Scoring Devices*. Following this, in the next paragraph, I'll explain how it helps me to problematize the electrodermal gizmos. The *Walking Scoring Devices* consist of a short length of firm cardboard, approximately 40 cm long and 17 cm wide, a bulldog clip, a loop of string, and a toilet roll (see Figure 1). I first created the *Walking Scoring Devices* for a soundwalk at Manchester Metropolitan University as part of the Summer Institute in Qualitative Research in July 2017; I intended them as a critique of how narrow microphones' recording ability is (particularly their inability to record non-audible aspects of sonic experience). I also often use toilet roll and felt tip pens as a music scoring technique with young children: unlike rectangular pieces of paper, toilet rolls don't have borders and so can be endlessly unraveled to allow a continual line or score to be drawn. The toilet roll is attached to the *Walking Scoring Device* with the string so that it can be unraveled across the board, allowing the user to rest on it while scoring with their dominant hand. Although implying a certain usefulness, the *Walking Scoring Boards* are cumbersome, impractical, and absurd. Juggling the toilet roll, the ream of used toilet paper, the board, and a pen quickly

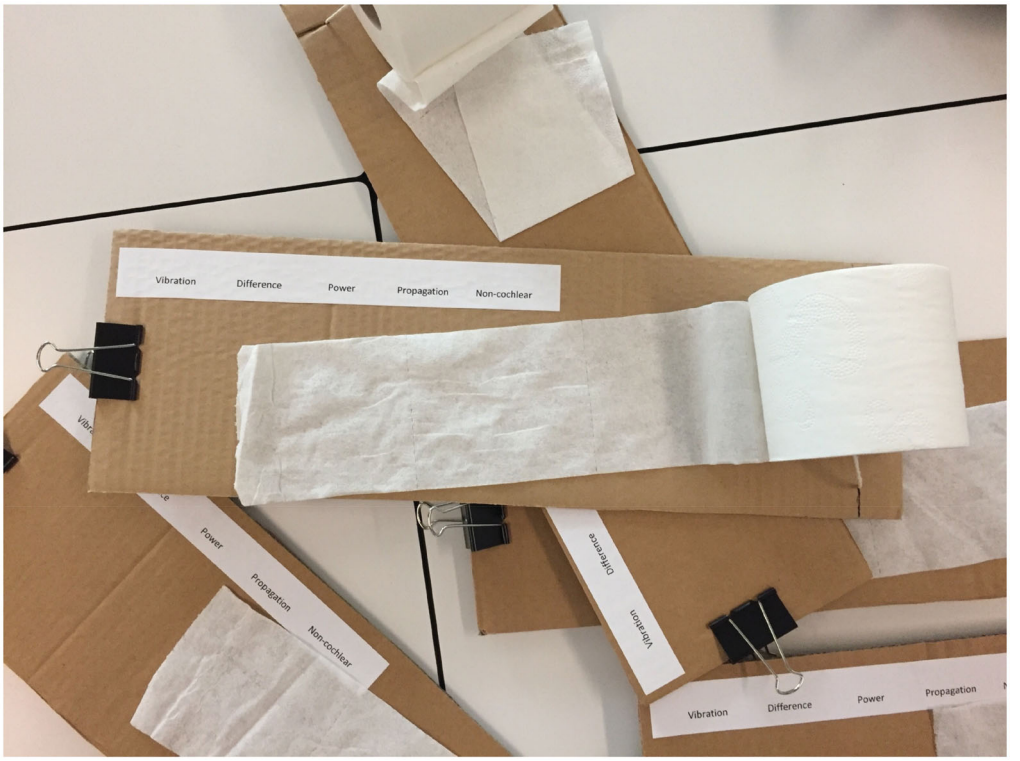

Figure 1. The picture shows *Walking Scoring Devices*. A label stuck to each reads "vibration, difference, power, propagation (Gallagher 2016), and non-cochlear" .

gets you in a tangle. The boards and toilet paper turn to mush in the rain and get blown about and away in the wind (and for those not familiar with the north of England, wind and rain is a pretty good summary). In addition to their absurd construction, toilet roll is often a poor writing medium: pens poke through it, and pencils tend to tear it.

The *Walking Scoring Devices* are taken up in this project with an identical methodological "(in)tension" as the electrodermal gizmos (Springgay and Truman, 2018). Springgay and Truman (2018) contend that the methodology through which methods are activated creates an ethico-political (in)tension: for Springgay and Truman (2018), it is not the method itself that is problematic, but rather *how* the method is applied. My use of the term "gizmo" to refer to the EDA devices throughout the project and this publication is tied to this ethico-political (in)tension: I use the word gizmo deliberately and humorously, but not out of a desire to make light of the technology: make no mistake, I find the technology deeply sinister. Yet, like the *Walking Scoring Devices,* carefully activating the absurdity of the method is part of the ethico-political (in)tension I brought to the gizmos. In formulating the idea of the gizmo, I draw from Sianne Ngai's (2020) writing on the gimmick. Ngai describes the gimmick as a mode of aesethetic that is "extravagantly impoverished", because of some discordance between its perceived value and its relationship to labour and time. She writes: "We call things gimmicks when it becomes radically uncertain if they are working too hard or too little, if they are historically backward or just as problematically advanced, if they are wonders or tricks" (p. 49). Ngai argues that the suspicion with which we approach the utility of the gimmick might be generative, and it is that suspicion that I hope to activate through my use of the term "gizmo". She contends that "the damaged gimmick's intimate relation to comedy, … reminds us of how the exercising of suspicion can be creative, playful, and sometimes queer" (p. 37). The electrodermal gizmos are seemingly useful, sophisticated and serious. At the same time, their narrow operating parameters are hilarious, and make them unsuited to the kinds of claims that researchers have tried to make using EDA. The temperature of the classroom varied wildly during the winter, and the idea of asking children to avoid sneezing and breathing is hilarious. Moreover, the gizmos glitched-out with alarming regularity, switching themselves on and off, and suddenly flashing indicator lights in ways that weren't described in the manual. They rarely formed the familiar "peak and gentle tapering off" expected of a truly legible autonomic response. In this way, the gizmos imply technological sophistication, and yet as research devices are ultimately absurd: working too hard and yet clearly not working hard enough. Yet, as Truman and Shannon (under review) contend, we live in times in which the absurdity of Western political figures (such as Boris Johnson) mean that the absurd is serious business. As Truman and Shannon write:

> the unending capacity of whiteness—particularly whiteness on a wealthy and enabled male body(mind)—demands that [they] continue to be taken seriously despite that absurdity. In this way, we are called upon to take the absurd seriously. (n.p.)

The absurd limitations of the electrodermal gizmos—including the very specific operating parameters, such as the narrow operating temperature, the need to stay still, etc.—have clearly not stopped their use to make absurd claims about the future of the A/autistic body(mind). Yet, and absurd thought it may be, the obsession with rendering the A/autistic body autonomically legible runs deep. In this way, after Truman and Shannon, "we are called upon to take the absurd seriously". So how can we simultaneously take EDA seriously and yet problematize its seriousness?

Jack Halberstam (2011) writes: "The desire to be taken seriously is precisely what compels people to follow the tried and true paths of knowledge production" (p. 6). In this way, by using the electrodermal gizmos alongside the *Walking Scoring Devices* to enact absurdity as an ethico-political (in)tension to method, we might enact "… new rationales for knowledge production, different aesthetic standards for ordering or disordering space" (Halberstam, 2011, p. 10). In other words, pursuing a methodological commitment to "embrace the absurd, the silly and the

hopelessly goofy" creates interference (Halberstam, 2011, p. 187). The point, then, becomes: what interference (patterns) can be generated by that absurdity?

Experimenting with the contingency of autism

After instructing children on how the EDA line worked, we composed line-based graphic scores to a performance of Heitor Villa-Lobos's *The Little Train of the Caipira* by the British National Children's Orchestra. We drew lines that follow the frissons and lulls of the composition, as it accelerates and undulates chaotically. The floor quickly became a mass of toilet paper, ripped and tangled, and poked through with felt pens and HB pencils. We gathered up the rolls and fragments. In the next workshop, we pulled the toilet paper apart (where it hadn't already been) and stuck it back together in different orders. Some children tried to match up a perfect line. Others aimed for polyphony, creating congruent parts, and sometimes even layering fragments of the score on top of one another, where traces from different parts of the composition could be read through one another: futures and pasts bleeding together. We then rehearsed the completed score for several weeks before performing it. Frissons and arousals initially derived from Villa-Lobos's score were repurposed and reshaped, inverted, and complicated.

In a later episode, we repeated this activity, but this time using the lines generated by the gizmos during a walk around the area immediately surrounding the school. Schools are deeply Anglo-centric spaces, and notable for the absence of non-English voices. In this way, the EDA mapped frissons as they unfolded in a racializing as well as disabling environment. We cut up the electrodermal linegraph and stuck it down on big paper. A4 paper is less malleable than toilet paper, and so the children formed one long line out of the reconstituted signal: they flipped it upside down and stuck peaks where there should have been troughs. In this way, they intervened in the legibility of the (autistic) body(mind).

Sylvia Wynter (2001) contends that the biological body(mind) is porous to social structures. She argues that semiotic processes are able to override the biological tract: in this way, the social is viscerally lived. She calls this *the sociogenetic principle*.[5] In other words, the biological *is* determinate of some things, but is not *wholly* determinate, and can also be determined by social processes (McKittrick, 2015). This is similar in some ways to other feminist material discussion of the hybridity of nature and culture. What is unique to Wynter's conception is the ways in which she centers raciality (Jackson, 2020). For Wynter, this social living of visceral life, and visceral living of social life, means that the felt experience of being human is in part shaped by the specter of the overrepresented European Man. In this way, discussion of typical deployment of EDA methods centers an "individual" autistic (lower-case) body(mind) that "feels" (i.e. is aroused without valence) in a way that is legible to Man. What the disruption of EDA in this vignette reaches for, then, is a dis-identarian unsettling of that individual in such a way that also hints at the contingency of the category of "autism". Concomitantly, our absurd failure to do method properly—after Tavia Nyong'o (2012, as cited in Johnson, 2015)—subverts the failure that had already chosen the autistic body(mind) (and that is narrated in the typical use of EDA methods). Instead, it applies that failure *to* the gizmo. The friction generated at the complex materialization of multiple, incommensurate A/autisms composed with—and unsettled the expectation of—what a body(mind) can do, subverting the reality of disability. I go on in the next vignette to think more about failure, specifically how the A/autistic failure to pass as neurotypical illustrates these overlapping incommensuracies.

Vignette 2: neuroqueer and neuroqueering failure

In discussing this vignette, I think about autistic counter-identity, as well as the reality of A/autistic ability and disability.

"Rei"[6] is a neuroqueer, Chinese girl. She often improvises vocal lines when recording our compositions. For instance, in one workshop, she softly chanted *xiǎo gǒu* (small dog) into the microphone. In another workshop, we wrote music for a series of animal video clips that had been used as part of the class's topic lessons on naming animals: we did this in small groups. Our compositions extended movements from Camille Saint-Saëns' *The Carnival of the Animals*.[7] I tasked Rei's group with extending the *Kangaroos* movement. Someone in the group was playing a *kalimba*—an Indonesian "thumb piano"—in an unusually firm way, which made a boinging sound. Rei improvised a vocal chant along with the boinging. In another workshop, while composing the sound walk described in the previous vignette *(Walking through Leeds on a windy day)*, Rei improvised a six-note melody (6:12 in the recording below). Her melody was perfectly aligned with the half-whole diminished scale starting on B. You can hear both *Kangaroos: Extended* and *Walking through Leeds on a windy day* via the link below (audio descriptions are provided following the link):

https://www.davidbenshannon.co.uk/ijqse

Password: IJQSE

In each of these improvisations, Rei failed to pass as neurotypical. But as Halberstam (2011) contends: "failure often means being relieved of the pressure to measure up to patriarchal ideals" (p. 4). In this way, these micro-failures are also moments of release from neuronormative expectations, and so are also moments of counter-identarian activism. I have written at length on the queer virtuosity of Rei's six-note improvisation in *Walking through Leeds on a windy day* (Shannon, 2020). Here, however, I want to emphasize what might be termed, after Jon Fessenden (2019), the autistic predilection for *spectral hearing*. Fessenden defines spectral hearing as "perceptual strengths in tasks involving pitch, and weaknesses involving time" (p. 1). In this way, Fessenden joins a group of scholars interested in what might be understood as an A/autistic musicing: specifically, one that suggests A/autistic people are better able to appreciate pitch than rhythm. Fessenden refers to this practice as a "cognitive imbalance", although—having always been very poor at rhythm and much more interested in harmony—I don't know that I understand it as such. Yet, spectral hearing also hints at the reality of autistic ability, disability and disabling. In this instance, Rei's learning support assistant attempted to silence her six-note improvisation, and its manifestation of spectral hearing, because this was a rhythmic (or at least percussive) activity: no pitch welcome. In this way, her improvisation, although gorgeous, failed to "pass". This was further evident when another child—Kwodwo—began his own improvisation (16:04 in the recording): his improvisation lasts 55 seconds but is highly rhythmic and non-tonal, combining beatboxing, giggles, and spoken rhythms. Kwodwo's improvisation was not interrupted.

Muñoz (2009) describes how queer refusal is both virtuoso and failure in the face of straight time. By enacting both failure and the virtuosic, this vignette hints at the intersection of two of the orientations towards A/autisms that I consider in this paper: the reality of autistic ability, disability, and disablement, as well as the contingency of the category "autism". Rei's (neuro)queer temporo-rhythmic failure in this encounter is a counter-identarian refusal of heterosexual-temporalities, while still subjecting her to the material oppression experienced at the intersection of racializing and neurodiverging assemblages.

Vignette 3: synesthesia and unparsing the body(mind)

In the third and final vignette, I go on to think about synesthetic experience, and how its failure at neurotypicality hints at the contingency of the category autism but also leaves us open to frictionally dis-identify with that category and reify counter-identity.

On 15th November, I introduced Pauline Oliveros' (2005) *Deep Listening* as a proposition for that day's workshop. To explain Deep Listening, we began with a discussion in which we listed some of the things we ordinarily listen to. For instance, "music". Britney quickly suggested "other music". I reminded her that we've already said music, but she interrupts exasperatedly to tell me "No! *Other* music that you listen to when you're doing writing!" which to me implies muzak-esque "chill" Spotify playlists and piano arrangements of Disney tunes. Other examples include TV, Batman, and Turkish music. Aaron said, "*Gangam Style's* my favorite song". Ioan added: "a balloon … when they break". A clock, on the bus, the computer, teachers, voices, clocks, grown-ups ("That's the same as voices Mr. Shannon" said Abayan in a stage whisper), microphones, and drums. Then, I explained Deep Listening as something that lets us listen really hard to really quiet sounds that are normally too quiet to hear: sounds outside of us, sounds inside of us, and even our own thoughts. We listened to *Lear* from Oliveros, Dempster and Panaiotis' (1989) album, *Deep Listening*. I asked for words that could describe it. There was a little pause, with nobody really sure how to describe it. I asked some binary questions: "Is it exciting or relaxing? Scary or happy? Sad or angry?" Abayan suddenly offered "dark" as an adjective.

In a later workshop, I had the children participate in an episode of deep listening. In every workshop, I always kept a small pile of florescent yellow ear defenders on hand, just in case anybody finds the volume of sound upsetting. I suspect that more often than not, they were just being worn for the novelty. On this occasion, one child asked to wear ear defenders. I said yes, which quickly lead to a stampede for the remaining ear defenders. Fortunately, I had received fifteen blindfolds that morning in preparation for a session in January and had brought them into school early so I couldn't lose them. Between the ear defenders and blindfolds, there were enough somethings to placate everyone. Suddenly, we were doing deep listening with a bunch of children who couldn't hear anything, and another bunch wearing sleep masks.

We ended up lying on the carpet for just over ten minutes. Every thirty seconds or so I'd suggest something that we might listen for (e.g. "Can you hear any moving? Can you hear any voices … um, voices that aren't me?"). I suddenly realized that the children wearing ear defenders couldn't hear me and yet were managing perfectly well without my interruptions, and so I stopped talking completely for about three minutes. The children carried on listening. Steven suddenly shouted "Mr. Shannon, I can hear my heartbeat!" This caused a ripple of "I can! I can!" Somebody shouted, "I can hear Aaron fidgeting". I reply, "We can *all* hear Aaron fidgeting". This caused another ripple, this time of giggles, and I decided to wrap it up. A few minutes later, back on the carpet, we discussed the listening. The children mentioned hearing "shouting pigeons, shouting children, lots and lots of cars, and noise", as well as "Emma telling you off for sitting on the table", the teacher "paper-waving", "Ulas feeling the carpet", and the "children outside hurt[ing] my ears". We talked about how paying really close attention with ears seemed to make things louder. Suryanshu, who had been wearing one of the pairs of ear defenders said, "One thing that I heard was that the sun was on my eyes and it was so bright".

Abayan's "dark" and Suryanshu's "hearing the sun so bright" are examples of synesthesia. Synesthesia is the experiencing of one sense as another. Composer Jean Sibelius was a well-known synesthete: he painted different parts of his home Ainola in colors that sounded like particular scales, and which in turn resembled the function of that part of the house. For instance, he had his wood-fired stove adorned in green tiles because green sounded like F major. Like other sensory processing differences, synesthesia is more common in A/autistic people than the general population (by approximately three times).

Synesthesia is a neurotypical concept: it relies on what Erin Manning (2020) calls "an account of sensation that can be parsed … cleanly between sense modalities and between the bodies that are said to be the locations of sense" (pp. 148–149). Similarly, Steph Ceraso (2018) complicates the clear delineation of hearing from other modes of sensory experience through her concept of "embodied listening": rather than the simultaneous perception of distinct senses, embodied listening attends to the multimodality of sound, and so to listening as "the practice of

attending to the sensory, contextual, and material aspects of a sonic event" (loc. 328). Similarly, sound studies scholars have written extensively on how sonic experience is constituted by non- (e.g. Tchumkam, 2019) or more-than-sonic experience. However, for Manning, to delineate synesthesia as a unique mode of sensory experience doesn't just require "cleanly parsed" senses: rather, it also requires "cleanly parsed" *bodies* capable of experiencing those senses. These "cleanly parsed bodies" are also the same unit of inquiry that the electrodermal gizmo explores. In the next paragraph, I consider how experimentation with the delineation between sensory modes might unsettle neurotypical coding of the senses, as well the neuroableist delineation between bodies.

I started the following episode by reminding the children of some of their ideas from the previous workshop: namely, Abayan's "dark" (shared anonymously, by his request) and Suryanshu's "hearing the so bright sun". We talked about how interesting it was that both children had heard something that we normally see. I had planned a carousel of experiments for this workshop based on Abayan and Suryanshu's propositions, with groups of six children engaging in each experiment at a time. On one table, a tiny Bluetooth speaker played back *Walking through Leeds on a windy day* with the bass EQ turned up high. Initially, I balanced the tiny speaker on a long thin piece of plywood, which vibrated as the music played. However, the children quickly realized that holding the speaker made the vibration much more noticeable, and it inevitably ended up held a few inches above the table by all six children in each group simultaneously: the throbbing bass frequencies from the Bluetooth speaker were no longer mediated by the plank of wood, and instead directly melded and morphed the mélange of six pairs of (rapidly moistening) hands. On another table, I placed the two Empatica devices, synced up to a pair of iPads showing the output of the sensors on a line graph, along with three pairs of *clave*: the children improvised along with the EDA lines using the *clave*. The lines quickly began to inform one another, with the *biolooping* of galvanic skin responses responding both to one another, and to the children's musical improvisations with those responses. In autism research, the term "biolooping" refers to the ways in which the institutional and familial responses to autism diagnoses might cause more autistic-like behaviors: in other words, with the social construct of diagnosis reinforcing the biologic etiology of what it is that's been diagnosed (and vice versa: see Hackett, 1999, as cited in Straus, 2013). Here however, biolooping indicates the ways in which ostensibly separate EDA signals from neatly parsed children's body(mind)s fed back through and amplified one another. Another table had ear defenders and sleep masks: children put them on and off to see how the general din in the room changed. The final table had adjectives from that half-term term's topic work on "materials" and a collection of musical instruments: the children sorted adjectives such as metal, hard, shiny, blue, and heavy to the sounds generated by each instrument when played. The association of non-auditory properties with sounds draws attention to what Ceraso (2018) calls the "sensory, contextual, and material aspects of a sonic event" (loc. 328).

Each of these experiments hinted at the contingency of "synesthesia". From time-to-time, everybody(mind) experiences synesthetically. Indeed, composers are used to rendering non-auditory experiences as sound. Thinking with DeafBlind author John Lee Clark's concept of *distantism*, Manning (2020) writes: "The categorising of experience in advance through neurotypical codes limits our capacity to imagine experience beyond the spatiality of [mediation]" (p. 189). In the classroom, our carousel of experiments reveled in the synesthetic by rejecting or complicating these neurotypical codes of sensory experience. In this way, they unsettled the arbitrary pathologization of some modes of sensory experience, and in so doing revealed the contingency of the category of "autism" (lower-case a). Moreover, some of the experiments tentatively hinted at how we might imagine beyond the notion of a cleanly-parsed body(mind): the unit of measurement electrodermal gizmos rely upon to make claims about autonomic otherness. The biolooping of the electrodermal gizmos through one another hints at how the neatly parsed body that EDA assumes is porous to other body(mind)s. At the same time, by deliberately materializing the

cross-modality of synesthetic experience, the carousel of experiments played with Autistic (upper-case A) practice as a counter-identarian cultural production, as valid and important as any other. Finally, the experimentations also dis-identified the whole notion of typicality and divergence by refusing the tidy delineation between neurotypical sensory experience and neurodivergent sensory experience. This is not say that the children "experienced" what it's like to be autistic or have sensory processing differences, but rather that our experiments complicated the pathology of those experiences.

Conclusion

In this paper, I have suggested that there is a generative tension (or friction) between the wildly differing and irreconcilable orientations often adopted towards A/autisms. I have framed this tension through my stylized writing of *A/autisms*. In this way:

- A/autisms is a contingent, problematic speciation of tendency;
- A/autisms is a "real" (scare quotes) disability with implications for how life is lived and particularly for those from whom diagnosis is routinely withheld;
- A/autisms is a fabulous (neuro)queer counter-identity;
- A/autisms is a (neuro)queering disruption of identity.

I have suggested that, rather than "pick one", holding all four in tension is a "necessary queer labor of the incommensurate" (Muñoz, 2015, p. 209): necessary in that A/autisms are already all of these things (and more!). This laborious tension is one that we would do well to hold onto not just in writing about A/autisms, but in any educational research that seeks to attend to a "post-" or "beyond" vision of the human. In this way, like queer inhuman orientations towards "post"-human and feminist material methodologies, A/autisms exists at a point of tension between "universalizing and locating" impulses.

The tracings of A/autisms that I offer here are limited, not least by my neurotypical intrusion into this academic space. No doubt there are A/autisms that I have not yet been lucky enough to encounter, and so have failed to adequately trace. Rather than a limitation, I follow Muñoz (2009) in understanding this incompleteness as a "utopic" mode of queerness. For Muñoz, the most utopic formulation of queerness is the one that remains on the horizon: a queer capaciousness that's constantly, tantalizingly just out of reach. As Michael Orsini (this issue) describes, all too often researchers find the complexity and intransigence of autism alluring; he contends that we should adopt an "epistemology of ignorance", wherein the A/autistic body(mind)'s refusal to explain itself is *itself* generative. In this way, the impossibility of fully materializing the (A/autistic) body(mind) through any one of these orientations might itself be thought of as a capaciousness that keeps A/autisms on the horizon: to hold A/autisms in tension as an ongoing "necessary queer labor of the incommensurate" is to keep them open to those faces we have yet to encounter, and those encounters we have yet to trace.

Notes

1. Barad's work is often taken up in qualitative research that draws from feminist new material or post-human theories (e.g. Malone, 2019).
2. Anne McGuire (2016), Majia Nadesan (2008) and Adam Feinstein (Feinstein, 2010) offer thorough genealogies of the conceptual development of autism.
3. I use the singular "autism" here to better reflect Yergeau's singular use of the term. As a neurotypical scholar drawing from the work of autistic scholars, it is important to accurately represent Yergeau's notion of what their autism is.
4. This may also drive related interests, such as the startling number of papers published in recent years on the use of social robots to "improve" A/autistic children's social skills.

5. Wynter is inspired by Frantz Fanon's (1967) concept *sociogeny*, or the social stuff that goes along with *ontogeny* (i.e. individual genetic) and *phylogeny* (i.e. species-level development). However, Fanon does not understand the phylo- or onto- as editable by the socio- in the way that Wynter does.
6. Pseudonyms are used throughout.
7. *The Carnival of the Animals* is often taught in British primary schools in fulfilment of the requirement that children listen to "great composers".

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