From Technique to Technicity: Non-Methodological Explorations of Chairs, Neurodiversity, and Schooling

Anani M. Vasquez
Arizona State University
asalgad@asu.edu
ORCID: 0000-0002-9977-0165

Timothy C. Wells
Arizona State University
Tcwells1@asu.edu
ORCID: 0000-0003-0674-5719

Marina Basu
Arizona State University
mbasu3@asu.edu
ORCID: 0000-0002-8149-0798

Garrett Laroy Johnson
Arizona State University
garrett.l.johnson@asu.edu
ORCID: 0000-0002-7799-8193

Abstract

In response to the call for this special issue, we draw upon Erin Manning's (2013, 2016) theorizing of technique and technicity to reconsider schooling and inquiry practices through the chair. The chair is often taken for granted and narrowly conceived through the lens of neurotypicality. By beginning with technique and technicity, this work foregrounds affect, relation and process, rather than object, form and method, so as to dislodge the chair from the sedimented practices of schooling and inquiry. In the emergent fashion of research-creation, this article makes use of genealogy, narrative and theory to explore how the interplay of technique and technicity might engender different modes of chair-ing, and how these modes might speak to concerns of neurodiverse schooling and research methods.

Key words: technique, technicity, neurotypicality, research-creation, educational research

From Technique to Technicity: Non-Methodological Explorations of Chairs, Neurodiversity, and Schooling

Erin Manning invites us, through research-creation, to examine traditional knowledge production practices. We engage with this invitation at two levels – firstly, by going beyond the tradition of "methodological ordering" (Manning, 2016, p. 26), to explore other orders and non-orders; secondly, by rethinking educational practices through such non-methodological explorations. The concept we think with is chair-ing – and following Manning (n.d.), we ask, what exactly a chair can do, in classrooms and in research. Although chairs have been the focus of much educational research, which will be discussed further, we will be expanding on Jones' (2013) use of the chair as a provocation. The chair as a provocation reproduces certain "formulaic" performances in the classroom (p. 2), often tied to neurotypicality. Additionally, thinking with Manning (2016) allows us to move beyond the objectness of the chair to explore the process of bodying that is activated by the chair. Moving from defining to doing—experimentally, creatively—we invoke techniques, also technicities, to think-feel the chair otherwise.

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I am one among 42, not counting the bigger one that faces all of us. I am paired with another, and positioned second from the front, middle row. I get moved – but just a little, and silently. Noise is frowned upon in this silent world of ordered lines.

The only sound comes from Her who sits on the big one in front. She tells them how to sit appropriately, beautifully. "Slide your skirt neatly beneath you. Legs together, like ladies. Don't shake your legs. Don't spread your legs. Don't lean back. Don't drag. Don't rock. Don't slouch. Don't."

There are 42 of us, and unless you look closely, you can't tell us apart. Like those who come in and go out, those who use us. Black ballerina shoes, white socks pulled up to the knees, blue pleated skirts, white blouses. They all file in. A chorused standing, "Good morning, Miss __," and

then everyone sits down quietly. Books open, pages turn. The bell rings. A shrill jarring sound that interrupts thought. All rise: "Thank you, Miss __." The big one in front is scraped back.

But before they leave, we are lifted on top of the flat wooden four-legged creatures. A little like us, but not as comfortable. Too high. Better for keeping books and pens on. Us piled upon them looks indecent though. With our legs up in the air, you can see our bottoms which are otherwise out of sight.

The 42 of us, close together. We dominate the landscape. Standing tall and straight. Standing in neat lines. Standing quietly, but at attention. There are rooms full of us. Nothing happens without us. Unless you are punished. Then you have to leave me, go to the corner and stand facing the wall. You can only walk around us in a straight line. There's no wiggle room, no space for movement.

Even among the crowd of ballerina shoes, I recognize hers. Every morning she makes her way towards me. To make me her home. Home that she never really looks at though, because her eyes are on the big one at the front of the room. Though I am right here always, and always holding her, and holding her in place.

And then one day she's gone. I am lifted onto the flatness, unceremoniously, my underside showing, my legs up in the air. Waiting until next year, when a new girl, with shiny black ballerina shoes will make her way towards me.[1]

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Chairs, Neurotypicality and Schooling

> Most of our education systems are based on starting from stillness. We learn in chairs. We associate concentration with being quiet. We discourage movement of thought we call daydreaming, particularly in the context of "learning." We consider immanent movements of doodling to be a distraction. We are told not to fidget. Reason is aligned with keeping the body still. (Manning, 2016, p. 122)

Figure 1

Chairs and Schooling

Modified from
https://commons.wikimedia.org/wiki/File:Andrew_Classroom_De_La_Salle_University.jpeg

Neurotypicality in Research Methods

Knowledge is produced by:

1. Predetermined, ordered steps.
2. Following predetermined protocols.
3. Stable codes and categories.
4. Predictable outcomes.
5. Written reports.

Schools all too often presume that learning begins with a still body. Therefore, the use of chairs to keep bodies still remains common classroom practice. Teachers learn strategies to ensure that students sit appropriately, "sit beautifully" (Jones, 2013, p. 6). The proliferation of classroom management strategies such as STAR and SLANT (Lemov, 2015) emphasize a focus, not on the chair itself, but on students' bodies. The chair is effectively relegated to the background of school experience as furniture to be arranged and forgotten while also allowed to seep into classroom culture and blend in with the habitual.

Sit up **T**rack the Speaker **A**sk and answer questions **R**espect those around you	**S**it up **L**isten **A**sk and answer questions **N**od your head **T**rack the speaker

Beginning with the chair as furniture, as an object in itself, orients the classroom (and more broadly, the school) to a distinct mode of experience and knowledge that is associated with neurotypicality. Manning (2016) locates neurotypicality at the three-part intersection of volition-intentionality-agency. It is a presupposition of independence, a cleaving of the relational and the

affective from the field of experience. The tendency of neurotypicality is to assume the material world is previously parsed, chunked into objects and subjects (e.g., chairs and students). This disentangling of the world returns "the wide-ranging belief that there is an independence of thought and being attributable above all to the human, a better-than-ness accorded to our neurology (a neurology, it must be said, that reeks of whiteness, and classism)" (Manning, 2016, p. 3). For us, it is not just the demand to sit up, track, listen, and nod that reflects neurotypicality, but the furtive, yet perpetual placement of the chair at the beginning point of knowledge, ultimately necessitating stillness of body and objectness of space.

Because we aspire to nurture neurodiversity in learning environments, we attempt here to think the chair otherwise. Perhaps it is not the objectness of the chair but the chair as technique that warrants attention.

Non-Methodological Exploration

Techniques appear everywhere. They are found in how we walk and run, sit and stand, hold pencils, and obtain another's attention. It is the pervasiveness of techniques that make them so easily forgotten. But a technique is more than a simple maneuver, it is a manner for creating a body. Manning (2013) describes the technique as "a process of bodying" (p. 31), an event that engages, not static bodies, but fields of relations composing in multiple directions. As an emergent event, a technique departs from a method, which prescribes endpoints and outcomes, often linearly and with presuppositions of value. Instead, a technique emerges locally, with bodies and contexts. Emphasis on with. As a body actualizes the context, that body is actualized. Technique as a process of bodying, then, is a manner through which a body becomes.

A technique is acted out when teacher call on their students to "show SLANT." As goes the expectation, upon hearing the call, students will drop what they are doing, straighten their backs, lift their chins, and eye the teacher. For many students, this is a moment to shine, showing the teacher just how attentive, upright, and compliant they can be. For others, it is not. The call simply becomes a precursor to a more personalized reprimand. For the teacher, the technique is one that redirects the classroom. It cuts the creative liveliness from the room. The conversations, the giggling, the mischievous play all come to a halt. In this call to order, students become recognizable, exposed, surfacing as bodies that "behave" and "misbehave." Here, as in so many techniques of the classroom, the process of bodying is one that appeals to the intentional-volitional-agential leanings of neurotypicality in that students are expected to have "control" or agency over their own bodies and "misbehavior" is seen as an intentional act instigated by the willfulness of a student. SLANT, therefore, is a technique that actualizes both the classroom culture and the individual students and teachers.

We continue to explore neurotypical chair techniques for sitting and staying seated before exploring the possibilities for neurodiverse techniques through technicity.

Sitting Up, Sitting Down

> "Regardless of how great your lesson is, if students aren't alert, *sitting up*, and actively listening, teaching it will be like pouring water into a **leaky bucket**" (Lemov, 2015, p. 360).

School-aged children are required to sit still for up to seven hours, almost at a stretch, as school recess and opportunities for play have dramatically decreased over the past 20 years (Dickey et al., 2016; London, 2019). Sitting upright in a chair is a complex task that includes at least two contradictory actions. To sit upright is to sit down yet stay upright, thus going with gravity yet acting against it in the same instance. Occupational therapists (OTs) who support individuals in

developing appropriate posture highlight that sitting still for long periods in today's classrooms requires "a high degree of neurological maturity" (Shlaes, n.d.a). These professionals are also trained in sensory integration and emphasize the need for movement because of its connection to attention, thinking and learning:

> A nerve in the inner ear… serves to tell the body how upright, aroused, and present to be in direct response to movement. The only way to activate the vestibular nerve so that it can do its job is to move… When we are forced to sit still for long periods, we are either in one of two states: the just right state, meaning that our bodies can support our ability to stay present by remaining effortlessly aroused and upright, or in a sensory needs state, which means that we cannot attend because our bodies need something to help our brains stay alert and ready to learn. The just right state doesn't last long when we are forced to sit without moving... (Shlaes, n.d.-b, para. 3-5)

OTs often prepare students for traditional classroom learning while also educating teachers about a learner's need for movement (Mills & Chapparo, 2017).

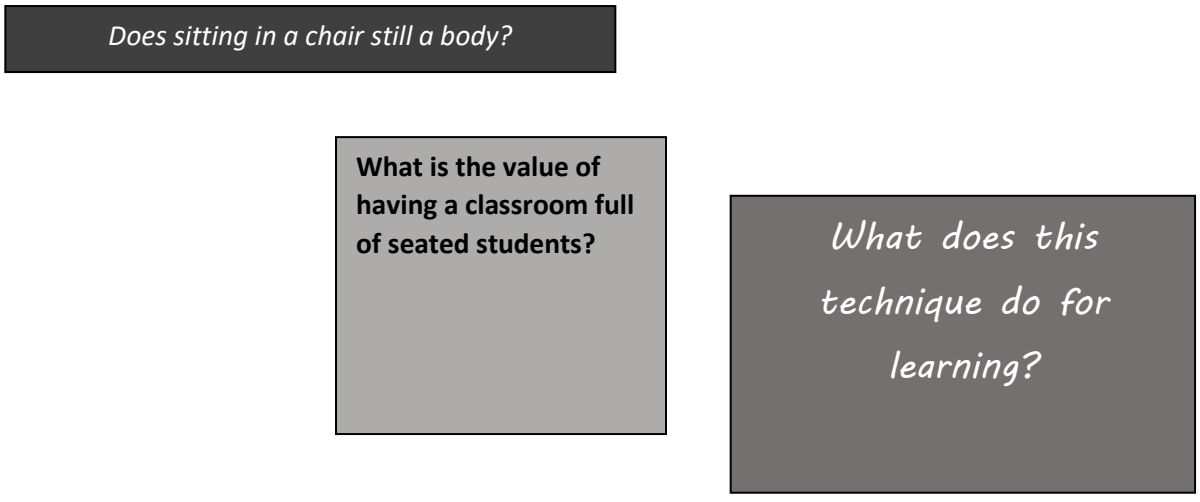
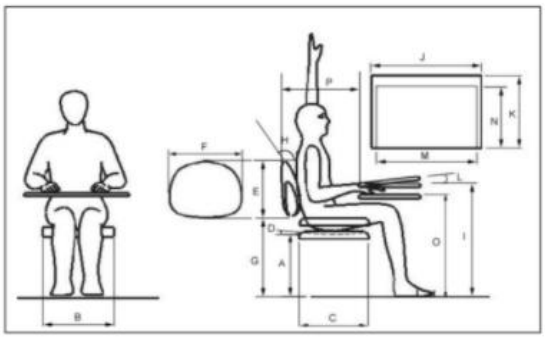


Figure 2

Diagram from an Ergonomic Chair Design Study (Lin & Kang, 2000)



Seated Research Methods

1. The researcher is a neutral and objective *observer*.
2. The researcher is *distanced* from the "subjects."
3. The researcher is framed, supported, *positioned* by the research design.
4. Knowledge is *cognitive*.
5. Knowledge is *contained*.

Chair Accommodations

Following the expectation that students remain seated in class, there has been substantial inquiry into the chair's physical attributes and affordances. Purwaningrum, et al. (2017) found that school chairs in Indonesia were too heavy for small hands to grasp and recommended lighter chairs to allow flexible arrangements for active learning. Likewise, designers around the world work to improve seating for students of various ages and sizes by focusing on ergonomics and desk to chair dimensions (see Figure 2, Fewchuck, 1997; Lin & Kang, 2000; Rosyidi, et al.,

2014). However, the implicit belief that learning should begin in this conventional position remains prevalent, and unquestioned.

A preoccupation with the chair as a stilling technique contrasts with OT understanding of the role of movement (as described by Shales) in learning and is further demonstrated in the following text from a US patent (Griesbaum, 1990):

> Programs to stimulate cognitive development are most effectively coordinated when children are in a seated position. Therefore, children with postural disorders are hindered in their mental development by not being able to maintain a seated position. Vice versa, children with delayed cognition and other mental disorders often lack the concentration that naturally helps a child pay attention in an instructional setting, and such children also often slouch or rotate in their chairs. (p. 4)

Thus, to achieve correct posture, a chair with adjustable dimensions, including an adjustable footrest, right angles for back and legs to decrease slouching, and a seat belt has been constructed (see Figure 3). Such "programs to stimulate cognitive development" need to be further explored. Do special chairs, weighted pads, and specialized cushions to ensure an upright seated position lead to learning? On the contrary, students with "postural disorders" might be hindered by the requirement to maintain this position while their bodies do not have

"The tyranny of chairs: why we need better design"

There are flexibly **designed** chairs such as the Tripp Trapp for children, with pegs for adjusting the **seat** and leg supports to grow with a **young** body. Some offices have started to introduce **standing** desks. But at the **average** restaurant, in the **ordinary classroom**, and on trains, buses and **aeroplanes**, you'll still find **chairs** that are mostly at **odds** with any idea of **comfort**. (Hendren, 2020, paragraph 10)

the physical strength or neurological maturity to do so, which takes their physical and mental energies away from the prescribed learning task. In these instances, the learning task has now become postural control or sustained upright sitting. Also, the children with cognitive delays and mental disorders described in the patent as having an inherent lack of concentration might benefit from more movement and less bodily constraints (Benes et al., 2016; Mills & Chapparo, 2017; Skonig, 2008).

These physical adjustments, devices and accommodations reflect neurotypical chair techniques for normalizing a student's body within the classroom context.

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My back hurts the first few days. I am not used to being without a chair, without the wooden frame supporting my back. I am required to sit on the floor.

The floor is mostly bare with its stones visible: irregular angles where they were laid imperfectly. Reed mats cover the middle of the floor. After you take off your shoes at the door, you can walk all around the classroom. Across, over, diagonally, horizontally, or zig zag. Nothing much comes in your way. There are five chowkies, or low tables, for children to sit around on the mats. Bookcases, teacher's desk, cubbies, art supplies, shelves with games are all set against the low walls. Most of the wall is taken up by mesh windows. You don't quite know where the room ends or begins.

You could have a dance class there, or a yoga class, or perhaps a theatre class. We use the space for all kinds of things. Not yoga or dance or theatre or maybe all of them if the character or the story demands. Or a gathering around to watch a neat science trick. Or sitting in a big circle for show and tell, or for circle time. Sitting close, so that not a single word of the story is missed. Or rushing from chowkie to chowkie for math games; or covering the floor with newspapers to measure area.

As I walk across the room, I feel the comfort of the reed mats under the soles of my feet, then feel the cold stone when my feet leave the mats. Some mats have the telltale reddish hues from the mud that children have carried in when their feet went running around without shoes then hurriedly over the doormat to join the circle, or maybe to join the crowd gathering for story time.

> Class time. Five chowkies, each surrounded by three or four bodies. Bodies are cross-legged, or leaning sideways on the tables, or kneeling down, or feet are tucked behind in the difficult yoga position that seems to be the most natural, most effortless position for these little bodies. Someone needs an eraser. One is rolled across the mat from another chowkie. She slides over to get it from where it has come to rest. Another takes his book and puts it on the mat, lies down, props his head on his arms to read. Two of them crawl over to their friend's place to start a conversation. Or continue one already begun outside? As they talk, their bodies take up various positions – half sitting, half leaning, one leg straight out, an elbow on the chowkie, an easy laugh, an arm on another's shoulder. A smile and a word from me, and they slide back to their chowkies.
>
> Quiet reading time. Each one finds their favorite spot in the room. Some crawl into the cubby, displacing their bags. A few sit on the chowkies to read. One loves to slide underneath one, keeping the book upright on the chowkie, using it as a book stand. A couple of them lean against the cupboard. Mr. Bookworm standing by the bookshelf as usual is lost in a book. Peace reigns. Everyone is engrossed in reading.
>
> I notice the spines of bodies, including mine, in every imaginable curve, and the spines of books, horizontal, vertical, slanted.[2]

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Non-Methodological Exploration Continued

Technicity remains latent. It is found within techniques but in a backgrounded or undergirded sense. Technicity connotes the more-than of a body. Context might be one way of thinking about the more-than of a body, but context tends to be taken as static and stable; thus, ecology is better. It conveys the processuality and metastability endemic to the body. Here the body refers generally to the being of an individual and the worlding of an ecology, both the student's body and the classroom ecology. So if we think technique as a process of bodying, "that which perfects a system," then technicity can be thought as the ecology of that process, "that through which a process is born that composes the more-than that is the body's movement ecology" (Manning, 2013, p. 38). Technicity acts through techniques, not parallel to but co-present with, registering the body's conditions of arrival, its coalescing rhythms, atmospheres, cadences. It registers what is latent within the event of the ecology, the background to the action

of the technique. But, again, this background is always dynamic, moving, evolving, co-composing with the techniques at hand.

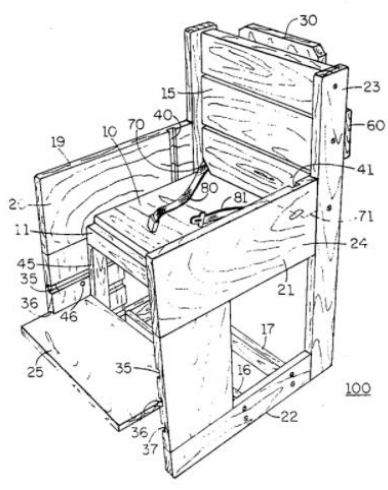
Consider bodies in the ecology of the second vignette. What neurodiverse techniques for chair-ing (embodying chair, seat, positions for learning, etc.) emerged within the technicity of this learning ecology? There were no chairs to sit on, so chair-ing became leaning, kneeling, crouching, sitting cross-legged, walking, dancing, dramatizing, gathering, crawling, sliding, rushing… These chair techniques, as processes of bodying, were born through more-than-chair/more-than-human-body co-compositions within this classroom ecology. Through the interplay of technique and technicity, the processes, relations and affects of chair-ing are foregrounded.

Power and Positioning

Power relations, or chair-ing as both physical and social positioning, has been examined in and beyond educational scholarship. The following quotes from the fields of engineering design and education are examples.

Figure 3

Image from US Patent 4,944,556 (Griesbaum, 1990)



> Setting a body higher than and apart from other people, in an individual structure with rigid, flat planes – a throne, if you will – evolved as a way of recognising an individual's power… (Hendren, 2020, para. 4)

> I'm always looking sideways to see who's sitting next to me, ahead of me, better than me, more privileged than me. (Saldaña, 2018, p. 185)

The term 'chair' has long been used to denote status, seen historically in the "throne" of sovereignty or contemporarily in the chair of an organization, i.e. high school band, corporate office, academic institution (Cranz, 1998). The higher the ranking the more the chair evokes notions of "'stability,' 'security,' 'certainty,' 'self-confidence,' and 'faith in oneself'" (Saldaña, 2018, p. 189). Chairs serve to position and rank, allying with notions of right and privilege, marking bodies with power.

These power relations are evident even in early childhood classrooms where there are marked messages between the carpet, the teacher's chair, who sits in each and what the sitting affords (Jones, 2013). Jones (2013) suggests that classroom spaces and activities form and are formed by "...a series of complex relational politics" (p. 8-9). Indeed, neurotypicality is a form of identity politics, always also entangled with relational politics, that affects anyone who does not fit within normative expectations (Manning, 2019). These classroom activities and expectations include sitting down, sitting upright, sitting still and staying in assigned seats. Toshalis (2015) states that even, or especially, when teachers allow students to choose their own seats, conflicts

ensue because of social hierarchies. When student choice in seating fails, teachers sometimes resort to punishment. “We may even react to their (mis)behavior by assigning seats as a form of collective punishment—or worse, by moving only a few troublemakers to those front and center seats, as though being closer to the teacher is a penalty” (Toshalis, 2015, p. 39). Implicit is the idea that the chair serves a central governing function, that the chair can and should be used to not only regulate the behavior of students but also to award status and rank, to create order. In this way, neurotypicality is upheld by a policing of humanness, or student-ness, partially defined by normative modes of movement and knowledge formation (Manning, 2019).

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There were a few minutes before class started. Raul sauntered in. My friend greeted him and he headed over to our science lab table. Since our table was near the wall cabinets, he leaned back, butt against the cabinets and crossed his arms. He looked casual but cool. All the girls would agree. Mr. Harden walked in and settled his things on the demonstration table. Most of the other students had gravitated to their stools. Raul stayed where he was.

Mr. Harden said, “Take your seat, Raul.” Raul declined, “No.” Mr. Harden stopped organizing his materials and looked at Raul. “Take a seat please, Raul. We are ready to start.”

Raul stood up straight, legs shoulder-width apart, arms still crossed and stared at the biology teacher. The tension in the room was palpable. We all liked Raul. We didn’t think he would take it much further. “No, I will not sit down. I don’t want to take a seat.” By this time his volume had greatly increased, and we all began to wiggle uncomfortably on our stools.

Mr. Harden picked up the phone and called security. “It’s because I’m Mexican, isn’t it?” Raul continued to shout about the many injustices he had dealt with in school as a Mexican. I don’t remember all that he said, but I remember how I felt hearing him. I wondered what had happened to make him feel this way. I hadn’t noticed anything that bad, but I was not Mexican, only Mexican American.

Raul never came back to school after that day. I have pictures of him in my high school scrapbook- mischievous glint to his eye, standing in that same feet-apart-arms-crossed pose. My memory of him is always standing. I wonder where he is today and what he stands for now.[3]

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Pain and Punishment

To dislodge the chair from sedimented classroom practices, we take a closer look at classroom management techniques before engaging further with neurodiversity and technicity. It is not uncommon for discussions of classroom management to begin with seating arrangements. Many of the most popular instructional texts for new teachers make explicitly reference to classroom seating and its use in minimizing disruptive behavior (see Jones, 2007; Wong & Wong, 2005). Educational researchers have also explored how seating might maximize instruction and increase desired academic and behavioral outcomes (see, Cheryan et al., 2014; Meeks et al., 2013; Rogers, 2020; Wannarka & Ruhl, 2008). The research connecting seating to behavior considers itself to be proactive in nature, functioning to reduce the possibility of disorder before disorder emerges. Proactive intervention in the classroom is a relatively recent phenomenon. Yet the use of chairs to manage and discipline students has a much longer history, something worth consideration for its continued presence in contemporary schooling.

Figure 4

Paddle Used for Corporal Punishment (CC By 3.0)

At the turn of the nineteenth century, the education activist, Joseph Lancaster, published what became a widely influential teacher manual which advocated, amongst other things, the innovative idea of withholding chairs from misbehaving students as discipline (see Lancaster, 1805). As went the practice, teachers would remove misbehaving students from their seats to stand and observe for the remainder of the day. To raise the stakes, the teacher would have the student assume the posture of a chair, “sitting on nothing,” exhausting the student quite

quickly. The intent of removing the chair was that of "wearying the culprit" into "behaving well." The student's own persistently standing body becomes the instrument of punishment. With echoes of Nietzsche's (1989) mnemotechnics, "the instinct that pain is the most powerful aid to mnemonics" (p. 61), Lancaster found in the chair a technique for instilling a well-behaved body without reliance on the lash. The teacher's authority was backgrounded; yet the effectiveness of pain in creating memory remained.

This tying of memory to pain points is something that we perhaps intuitively know but readily neglect in the context of schooling: that memory is more than cognition, it is equally embodied and affective. The same can be said for learning. While the focus is often on stilling the body to fill the mind, separating body and mind, many disciplinary techniques involve affecting the body to make the mind remember expected behaviors. This is seen in the demand for misbehaving students to stand, exhausting their bodies. It is also seen in the separation of misbehaving students from the rest of the class. These techniques serve to expose and shame the student in the hopes of teaching appropriate behaviors through the pain-memory connection. Yet in many classrooms, from Lancaster's time to

NEUROTYPICALITY

"Neurotypicality cannot be the barometer of experience, and, by extension, nor can the very category of the human upheld by neurotypicality…

It follows, then, that any critique of neurotypicality–which will always be a critique of identity politics as I understand it, must be extended such that it can also become a critique of racism and colonization and any other exclusion perpetuated by the category of the human…

To do this work, modes of knowing differently must be valued…

These modes include movement, texture, touch, and they include much more that is too mere for us to perceive"

(Manning, 2019, para. 72-74).

today, the cognitive is aligned with the formal curriculum and the embodied and affective is aligned with the aberrant.

What is most striking is that Lancasterian schooling explicitly exposes the pervasiveness of neurotypicality. For the support of a chair in a learning space to be granted and legitimized, a student must display self-regulatory control, the volitional, intentional, agential abilities allied to neurotypicality, i.e. their capacity to sit unencumbered by the impulses and urges of movement through the duration of the class.

Figure 5

Chair Removal Techniques Separate, Expose and Shame (CC By-ND)

Vulnerability and Shame

While some practices have changed since Lancasterian schooling, the fear of the exposure of having an unregulated body remains. Consider how the whoopee cushion prank produces a humor that lies not just in violating social taboo but also in an unspoken shame of the body and fear of its entropic (dis)organization. Unintentional flatulence signals failure to demonstrate mastery of the body, a failure to bind bodily processes to our will. A much crueler and very dangerous prank (McGill 1999), pulling the chair out from under a person sitting, operationalizes this physical vulnerability towards a betrayal of trust. So, what's the joke? Well,

it is shame of our corporeal, social, emotional precarity. When we take our seats, we index the room: our relationships with our bodies in the past, present, and future; our situatedness in a dynamic material world; and our investments, trust, and confidence in the people in it.

The ingression of shame into bodily memory, like the punishment examples above, centers our experience around precarity and couples a bio-social gravitas with the physical gravity pulling us to the chair, working like an attractor. In this sense, the chair is not "first and foremost a chair, but the activity of sitability," a relational field from which emerges the chair's "'object-like' intensity," whose form "cannot be disconnected from the quality of its form-taking" (Manning, 2013, p. 48). The form-taking of the chair is experienced as multiple possible experiences of sitability, or chair-ing, and is "never contained by the dimensions of the object (or subject) itself" (Manning, 2013, p. 48).

So, it is not exactly the chair but the manner of chair-ing that is in question here. The school chair has served as support not for all bodies but for normative and neurotypical bodies. These are bodies that reflect the presumptions of volitionality and independence. These are bodies that comfortably segregate the cognitive from the affective and the embodied. It is toward this neurotypicality that teachers are encouraged to design classroom seating arrangements and are all too often demanded to adhere to when delivering instruction from formal curricula.

Chair techniques in interplay with technicity-—historical, contextual, relational and affectual ecologies-—bespeak of a shift from sedimented practices toward process and possibility, referred to by Jones (2013) as force.

> Paradoxically, the chair is both power and force. It keeps Jack in his proper place, a place that is defined linearly where unruly child will become subjugated subject… also… the

> chair and Jack constitute an alliance where both are immersed in a changing state of things, in other words “force”... “something” that is qualitatively different to the “striated” or predictable and formulaic… (Jones, 2013, p. 22).

***

It had been a frustrating day for Christa. She had tried to work along with the class. Even with my insistence that her effort was sufficient, my assurance that I would fill in her notes with what was missed later, she was very unhappy. I could feel her anxiety rising as she began to slowly tear her worksheet into tiny pieces. She took a break in the tent in the corner of the classroom. It was a safe, calm space within the fast moving, busy classroom. There she was able to separate herself from grade level tasks and the reminder that she just couldn’t do what her classmates could.

Christa and I had had a good relationship. She had begun to build up her confidence and after recognizing her strengths in other areas, she began to take chances with learning how to read. But today was different. I couldn’t stop to spend one-on-one time with her as often as she needed it. It was a frustrating day for me, too. I kept thinking I should have prepared notes for her. I should have… I should have….

Finally, it was time to put chairs up on the tables and line up at the door. Most of the students were in line and I was looking forward to the end-of-day relief soon to come. But that wasn’t to be. Someone said something. It was the last straw for Christa. She moved out of line, grabbed the leg of one of the chairs from a nearby table and flung it down to the floor. It flew about three feet, slightly nicking another student on the leg. The whole room went silent.

Christa was in tears and unable to speak. What could I have done differently? My heart broke when that chair hit the ground. I had to document the behavior. I knew that Christa was dealing with difficult circumstances. I knew how hard she was on herself for not measuring up.

Christa needed to lash out, but she didn’t lash out at any person. Instead, Christa-chair became frustration-force. [4]

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Shame and Self-control in Research Methods

1. Researchers feel shame if their studies do not yield *expected results.*
2. Researchers and editors prefer methods that are *safe* rather than unpredictable.
3. Researchers are expected to *master* their methods.
4. Researchers are expected to be *experts* in their field (more so than their participants).

An Encounter with Technique, Grasped with Shame

The interplay between technique and technicity has been very useful for understanding the chair's social, anatomical, and political function in the learning ecology. But practical concerns remain unaddressed, concerns related to the artfulness that emerges when we are caught by the lure of Manning's concepts, and start to work, think, and move their transduction into research-creation within our own situated practices. The research-creation that has emerged from this exploratory examination of traditional knowledge practices has become an artful shape of an entanglement with narrative, history and theory.

Manning takes up the philosophical question of where to begin, and if beginning in the middle, how, and when. How did we begin this inquiry, and why did we begin with the chair? Our collaboration began with the tacit lure of our project, to explore chairs and schooling. And starting in the middle, in the milieu, we recalled many instances in our lives, as students, teachers and researchers, where the chair emerged as more than a classroom object, urging us to wonder how the chair bodied through technique and technicity. But there are other affective elements

that we find unaccounted for when we transduce these concepts to the analysis and modulation of learning environments. With Manning's process philosophy, starting in the middle means starting in a relational field, in an ecology, in the event as it unfolds. Similarly, for Gilles Deleuze, the starting place for philosophy is the encounter, which may be "grasped in a realm of affective tones" (Deleuze, 1994). We wonder if our starting point was not only an encounter with technique, but an encounter with technique, grasped with shame, as chair-ing quickly led us to recognize inequities in education and consider possibilities for more equitable classrooms (and it follows: school, academia, and society).

Aislinn O'Donnell identifies shame as an important and understudied affect in the politics and creativity theory of Gilles Deleuze (O'Donnell, 2017). She contrasts two notions of shame. The first is familiar to us as an everyday affective, intensive, and social experience like mentioned in the examples above. The second type is something else: *a shame of the world*. This shame for Deleuze is not a pure negation, or pessimism, but is an empathy for the exploited of the world that bears an affirmation of the possible — the kernel of creativity. In short, this shame is the cry that *another world is possible*. O'Donnell (2017) writes that "such pre-personal shame offers a normative position that does not prescribe how things ought to be but only constitutes a refusal or negation of the intolerable nature of the present, whilst recognizing how we are all tainted by what others have done or failed to do" (p. 2).

In recognizing its failures, shame becomes a useful starting point for making technique and its dephasing into technicity transducable to domains like the classroom. In the last vignette, the narrator becomes frustrated as the school's strictures limit her options for engaging Christa in ways which might have decreased the student's frustration and subsequent 'misbehavior.' In that event, the teacherly technique (prescribed by a district, a principal, perhaps a couple more

supervisors and consultants here and there) falters before a more complicated situation demanding flexibility, improvisation, and the subjugation of a technique by an emergent technicity. In retrospect and in retelling, the vignette does not betray any easy solution. Easy solutions are rare when complex and interwoven situations and practices compose a classroom. The vignette gives us pause; it creates an opening. We feel ashamed not for Christa, not for the instructor, nor for any individual. Rather we feel shame because the neurotypical system has failed Christa's movement moving.

To the extent that our research-creation with chairs is conjoined with broader political and ethical struggles towards the celebration of a neurodiverse world, it is our inability to tolerate the chair as a technique of torture in Lancaster's classrooms, as needless frustration in Christa's case, or as the mobilization of students' bodies as organs of social order with SLANT that bears an affirmation of the possible, the kernel of creativity. As demonstrated, a multitude of techniques for assembling chairs and folding bodies are already being engaged in classrooms around the world. In attuning to classroom technicity, it is clear that simply ridding schools of torture techniques is not a feasible solution. Neurotypical techniques and their proclivity for the disciplinary can always pour in through chairs and books and clothing. Supposing that learning and teaching often create the conditions for more vivacious subjectification, we need to take shame seriously as a key dynamic in transitioning from technique to technicity.

Research-Creation and the Chair

Drawing upon Manning's (2013, 2016) theorizing of technique and technicity, we have reconsidered schooling practices with the chair. In doing so, we also, with the chair, reconsider methods. Manning (2013) rejects method entirely by embracing radical empiricism, an openness

to experience in its unfolding. Like Manning, we suspect method of stilling, stabilizing, and delimiting knowledge-production within academic disciplines (See Research Methods textboxes interspersed throughout article). Reflecting on classroom chair techniques, we notice some resonance with method's hegemonic valence in research practices. The chair keeps a body still and upright, upholds normative and neurotypical expectations of behavior, and is used to inflict or ease pain and shame. Researchers approach methods as a tool for "stilling," and extracting from the world. Methods are used to cut meaning, knowledge, themes, and data out from the world in predictable ways that ensure academic recognition. The presumption is that knowledge exists "out there" independently, and method is simply an extraction device. A "rigorous" researcher need not feel shame for work that has been meticulously executed in a prescribed fashion and has yielded expected results. Quite similarly these functions parallel the function of the chair in the classroom, an extraction device with the purpose of yielding neurotypically achieving students. The chair extracts the body from thought, from learning, much like the method extracts the material from the ecology of experience. Both chair and method tend to privilege the cognitive over the affective, embodied, and experiential.

Research-creation, as exemplified in this article, offers an alternative to method, as described in various textboxes throughout the article. Our interest lies explicitly in how research and creation infuse each other, taking seriously how much work the hyphen in research-creation does (Manning, 2016). In doing so, research-creation turns our attention from knowledge extraction to knowledge production as a process, therefore overturning the hegemony of research outcomes and work deliverables. Instead we find in making a thinking, and in thinking a practice. It is while working with process in the hyphenated research-creation that we are compelled to consider technique, through technicity, as the particular modality of expression,

mode of activity, that research-creation invents, not "preprogrammed" as in a method, but comprised in the "experimental, emergent effects of an ongoing process" (Massumi & Manning, 2014, p. 89).

Experimental and emergent can be very uncomfortable adjectives for educational researchers. Just as we do not wish to suggest that problems with neurotypicality might be solved by clearing the chairs from all classrooms, neither do we suggest that eliminating methods through research-creation means anything goes. Manning rehabilitates technique within the context of inter- or trans- disciplinary work (Manning, 2016), stating that a rigorous technical capacity is necessary for research-creation. Well-developed techniques are rare, but interdisciplinary collaboration vitally proffers diverse sets of techniques for consideration. Sadly, too often interdisciplinarity is only evident in the output (i.e. findings/results) of a project, leaving much about the process of research and creation untouched (Massumi & Manning, 2014). In such cases we wonder about tacit commitments to techniques beholden to discipline-informed method. The potency of interdisciplinary collaboration lies in the possibility of emergent technicity out of the assembled techniques.

During our interdisciplinary collaboration, research-creation emerged from a variety of aesthetic and pedagogical techniques. Workshops, reading groups, movement exercises and classroom interactions all tacitly informed our study. We found, though, that in writing vignettes and using creative nonfiction we were able to access multiple and varied, affective and embodied encounters with the chair (see Michael, 2014; Tedlock, 2018). For example, to first recollect the incident is already a second encounter, to resituate the events in the act of writing the collaborative essay, to retell and to re-inspire, additional encounters. The chair vignette then became a lure for movement, including movement of thought, an "edging into experience"

(Manning, 2016, p. 48) and a technique, that which "allows the ecology of movement to open itself to its generative potential," making difference felt, startling "the original task, opening it up toward its more-than" (Manning, 2013, p. 78-79).

In both writing vignettes about chairs and writing about chairs as classroom objects, we have aspired to dephase technique to technicity while submitting to a shame of the world, thus bringing us to care differently about the chair as a pedagogical tool and as a methodological concept. "Research-creation, at its best, has the capacity to impact our social and material conditions, not by offering more facts, differently figured, but by finding ways, through aesthetic encounters and events, to persuade us to care and to care differently" (Loveless, 2019, p. 107). Through research-creation, we aimed to think-do across theory and practice, collectively creating knowledge through the process of multiple encounters with the chair. We were less interested in how a chair affects a body than in how 'chair' is activated in a chair-ing event. This required thinking the chair as technique, working the chair toward technicity.

Speaking methodologically, chair as technique is a way to foreground the formative and stilling process that a method affects on its environment, or at least attempts to affect. Leaning into technique required a shift away from extracting toward creating-with. And moving from technique to technicity shifted attention once more from creation as a static object or outcome to creation as process. It included not just the process of bodying, but also the flux of that process. For us, this was creative, embodied, and neurodiverse work.

Classrooms that presume the chair as a stilling device adhere to neurotypical modes of schooling. Neurotypicality begins not with emergent processes and movement but with preexisting objects and forms. Further, it maintains that knowledge and meaning stem from an adequately parsed world, with objects and forms clearly extracted from their ecologies, and

therefore evaluates progress using those same objects and forms, similar to the posture of methods. Our shame of the world, of neurotypicality, extends beyond elementary schools, high schools, higher education and academia, and persuades us to care differently. By the actualizing functions of technique and technicity that hold to the dynamism, flux, and movement characteristic of neurodiverse experiences, we have attempted to give value to research-creation in education.

Research-Creation in Education:

- Art is a way (process not outcome) and teaching is an art (intuitive and improvisational).
- Making (doing, moving) is thinking (learning, knowing).
- Neurodiverse modes of activity potentially create new concepts and processes.
- New forms of knowledge are co-created through an interplay of technique and technicity.
- Defies neurotypical standards of (e)valuation (e.g., typically funding is based on predicted research outcomes).

Adapted from *The Minor Gesture* (p. 28), E. Manning, 2016, Duke University Press.

References

Benes, S., Finn, K., Sullivan, E. C., & Yan, Z. (2016). Teachers' perceptions of using movement in the classroom. *The Physical Educator, 73*, 110-135. http://dx.doi.org/10.18666/TPE-2016-V73-I1-5316

Cheryan, S., Ziegler, S., Plaut, V., & Meltzoff, A. (2014). Designing classrooms to maximize student achievement. *Policy Insights from the Behavioral and Brain Sciences*, *1*(1), 4-12.

Cranz, G. (1998). *The Chair: Rethinking culture, body, and design.* W. W. Norton & Company.

Deleuze, G. (1994). *Difference and repetition* (P. Patton, Trans). Columbia University Press.

Dickey, K., Castle, K., & Pryor, K. (2016). Reclaiming play in schools. *Childhood Education, 92*(2), 111-117. https://doi.org/10.1080/00094056.2016.1150742

Fewchuck, M. A. (1997). *School chair*. (U.S. Patent No. 5,860,697). U.S. Patent and Trademark Office. https://patentimages.storage.googleapis.com/33/e7/38/dc9ad882fb2b2c/US5860697.pdf

Griesbaum, T. J., Lydic-Mettler, J. S., Flores, P. A., Jasek, A. B., & Wrzensinski-Conran, M. A. (1990). Supportive chair, adjustable for growing with a child. (U.S. Patent No. 4,944,556). U.S. Patent and Trademark Office. https://patents.justia.com/patent/4944556

Hendren, S. (2020, August 25). The tyranny of chairs: Why we need a better design. *The Guardian.* https://www.theguardian.com/artanddesign/2020/aug/25/the-tyranny-of-chairs?CMP=Share_iOSApp_Other

Jones, F. (2007). *Tools for teaching: Discipline, instruction, motivation*. Fredric H. Jones & Associates. Inc.

Jones, L. (2013). Children's encounter with things: Schooling the body. *Qualitative Inquiry, 19*(8). doi: 10.1177/1077800413494348

Lancaster, J. (1805). *Improvements in education, as it respects the industrious classes of the community.* Cambridge University Press.

Lemov, D. (2015). *Teach like a champion 2.0*. Jossey-Bass.

Lin, R., & Kang, Y. Y. (2000). *Ergonomic design of desk and chair for primary school students in Taiwan*. Journal of Chinese Inst Ind Eng. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.498.6483&rep=rep1&type=pdf

London, R. A. (2019, November). The right to play: Eliminating the opportunity gap in elementary school recess. *Phi Delta Kappan*, 48-52.

Loveless, N. (2019). *How to make art at the end of the world: A manifesto for research-creation.* Duke University Press.

Manning, E. (2013). *Always more than one: Individuation's dance*. Duke University Press.

Manning, E. (2016). *The minor gesture.* Duke University Press.

Manning, E. (n.d.). *What things do when they shape each other: The way of the anarchive*. http://s3.amazonaws.com/arena-attachments/990937/bdabcf14b7f9b5ab91be88ac871d44aa.pdf?1493056093

Manning. E. (2019, January). Toward a politics of immediation. *Frontiers in Sociology.* https://doi.org/10.3389/fsoc.2018.00042

McGill, S. M., & Callaghan, J. P. (1999). Impact forces following the unexpected removal of a chair while sitting. *Accident Analysis & Prevention*, *31*(1), 85–89. https://doi.org/10.1016/S0001-4575(98)00048-7

Meeks, M. D., Knotts, T. L., James, K. D., Williams, F., Vassar, J. A., & Wren, A. O. (2013). The impact of seating location and seating type on student performance. *Education Sciences, 3*, 375-386. http://doi.org/10.3390/educsci3040375

Michael, M. (2014). Anecdote. In C. Lury & N. Wakeford (Eds.), Inventive methods: The happening of the social (pp. 25-35). Routledge.

Mills, C. & Chapparo, C. (2017). Listening to teachers: Views on delivery of a classroom based sensory intervention for students with autism. *Australian Occupational Therapy Journal, 65*, 15-24. doi: 10.1111/1440-1630.12381

Nietzsche, F. W. (1989). *On the genealogy of morals* (Trans., W. Kaufman). Vintage.

O'Donnell, A. (2017). Shame is already a revolution: The politics of affect in the thought of Gilles Deleuze. *Deleuze Studies*, *11*(1), 1-24.

Purwaningrum, L., Funatsu, K., Rosyidi, C. N., & Muraki, S. (2017, January-March). Considering children's methods of grasping and carrying elementary school chairs for easy carrying, lifting and turning. *SAGE Open*, 1-8. Doi: 10.1177/2158244016678037

Rogers, K. (2020). The effects of classroom seating layouts on participation and assessment performance in a fourth grade classroom. *Journal of Learning Spaces, 9*(1), 31-41.

Rosyidi, C. N., Susmartini, S., Purwaningrum, L., & Muraki, S. (2014). Mismatch analysis of elementary school desk and chair key characteristics in Indonesia. *Applied Mechanics and Materials, 660*, 1057-1061. Doi: 10/4028/www.scientific.net/AMM.660.1057

Saldaña, J. (2018). Second chair: An autoethnodrama. *Research Studies in Music Education, 30*(2), 177-191. Doi: 10/1177/1321103X08097506

Schlaes, L. (n.d.-a). Advice from the OT: Why good sitting = good learning. [blog.] Retrieved from https://minds-in-bloom.com/advice-from-ot-why-good-sitting-good/

Schlaes, L. (n.d.-b) Advice from the OT: Why it's so hard for children to sit still and what you can do about it. [Blog.] Retrieved from https://minds-in-bloom.com/advice-from-ot-if-you-want-children-to/

Skonig, S. (2008). Movement and dance in the inclusive classroom. *Teaching Exceptional Children Plus, 4*(6). http://escholarship.bc.edu/education/tecplus/vol14/iss6/art2

Tedlock, B. (2018). Braiding narrative ethnography with memoir and creative nonfiction. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (pp. 854-866). SAGE.

Toshalis, E. (2015, October). 5 practices that provoke misbehavior. *Educational Leadership*, 34-40.

Wannarka, R., & Ruhl, K. (2008). Seating arrangements that promote positive academic and behavioural outcomes: A review of empirical research. *Support for learning*, *23*(2), 89-93.

Wong, H. & Wong, R. (2005). *The first days of school: How to be an effective teacher*. Harry K. Wong Publications.

Footnotes

[1] This vignette draws from Marina's experiences as a student in a missionary or "convent" school in India decades back, where discipline dominated schooling and chairs dominated the classroom space. Textbook based direct instruction was provided to "cover" the syllabus, similar to the covering of standards in contemporary US schools and teaching to the test was common practice.

[2] This vignette draws from Marina's experiences as a teacher in a non-traditional school in India. In sharp contrast to her own schooling (see note 1), this school had neither tests nor textbooks in the elementary grades. Wholistic education and experiential learning were emphasized instead. The minimal classroom furniture is a reflection of the school's educational philosophy and is not indicative of a lack of resources.

[3] This vignette draws from Ananí's experiences as an International Baccalaureate high school student in the US. She, along with several of her peers, attended a school outside of their residential communities as part of a magnet program developed to racially desegregate schools in her metropolitan area.

[4] This vignette draws from Ananí's experiences as a general education teacher attempting to differentiate for a wide range of students in a Title 1 school in a large US city while following a prescribed curriculum. Her prior general education teaching experience occurred before No Child Left Behind and her recent teaching experience was in Special Education resource. Both prior experiences afforded her flexibility in teaching curriculum and methods, resulting in an intimate tie between teaching content and classroom management, a missing element in this vignette. Christa is not an actual student but represents a conglomeration of various past students and events.