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Sang-Hie Lee
Steven Specter
Ruth Bahr
Candace Burns
Marzenna Wiranowska
Editors

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Chapter 11
Whole Person/Whole Learner: Using Alexander Technique Principles to Help Modulate Trauma-Related Stress in Performing Arts Teaching and Learning

Elizabeth Johnson

> *You are not here to do exercises or to learn to do something right, but to get able to meet a stimulus that always puts you wrong and learn to deal with it.*
>
> *–Frederick Matthias Alexander [26], p. 8.*

Introduction

In arts education and learning, like in many skills-based or technical pursuits, student sensitivities to stress and trauma are unavoidable. Definitions of what arts fields consider "successful" performance outcomes are often interrupted by mind-body behaviors and habits that interfere with integrated and lasting learning. This chapter considers the question, "In Performing Arts teaching and learning, are stress-based habits, for example, excess muscular tension, mistaken for and even demanded as reflectors of professional performance discipline?" and presents definitions of and statistics on abuse that are inherent in student populations. In cases where the answer to the guiding question is "yes," the author offers pedagogical insights from the psychophysical practice of the Alexander Technique (AT) that, when applied, encourage productive, welcoming, and reassuring learning contexts and counter unnecessary, trauma-reactive habits often "trained" into so-called technique [1], p. 275.

By their very nature, performance-based art forms are embodied (e.g., fields of Music, Theatre, Dance, etc.). In Dance, Theatre, and Vocal Performance, the body itself is the instrument; musical instruments become expressive extensions of the

E. Johnson (✉)
Department of Dance, University of Maryland, Baltimore County (UMBC), Baltimore, MD, USA
e-mail: elizabj2@umbc.edu

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humans who play them. Any vocal or instrumental lesson, or acting or dance class, provides a clear opportunity to witness mind-body behaviors and habits that often interfere with meaningful learning and skill acquisition. Students frequently present with excessive muscular or vocal tension and anxious hyper-vigilance. During the COVID-19 pandemic (and before and after), other observable stress effects may be recognized as overall overwhelm, reflected in skeletal collapse or compression.

In my forty-plus years of being a student, professional performer, and teacher of dance, I have encountered many teaching dictates across performing arts disciplines. A popular one is the "leave your problems at the door" trope—the suggestion that artists in training must not bring the whole of their lived experience to the learning process. Rather, only the hyper-focused, disciplined artist self is welcome in the studio. The implied expectation for students to exhibit a kind of superhuman emotional override or detachment from negative, stressful, or traumatic experiences (rather than being able to process and integrate them maturely) has been normalized in arts pedagogies [2].

This ongoing dissociative instruction denies the facts embedded in the lives of the students who populate our classrooms, rehearsal rooms, and studios. They are inevitably part of the existing statistics of greater cultural crises historically and currently. To think that the scope of stressors affecting gender, race, class, ability, age, etc., can be "left at the door" is naïve at best and harmful at worst. The mindset and muscular tension a dancer, actor, violinist, or vocalist brings into the room may be rooted in experiences that far precede and exceed the scope of their arts training.

Sobering Social Stressors Students May Be Bringing into the Class

In the National Institutes of Health National Library of Medicine online, in StatPearls's section *Domestic Violence*, authors Huecker, King, Jordan, and Smock emphasize that family and domestic violence including child abuse, intimate partner abuse, and elder abuse are common problems affecting at least 10 million people in the United States yearly [3]. They view the numbers as a national public health emergency, and state that "virtually all healthcare professionals will at some point evaluate or treat a patient who is a victim of domestic or family violence" [3].

As in past eras in the US, much of the current politics and social discourse continues to obscure and deny the epidemic. Even so, in the land grant state universities in which I have taught and served as full-time faculty or a guest, there are mandatory trainings in which it is emphasized that if the identifiers of abuse or perpetrated violence are recognizable in students enrolled in courses, reporting to legal authorities is obligatory. The frequency with which our students experience violence in families and intimate relationships cannot be known to us explicitly, and yet, emotional and physical violence often lives implicitly in the bodies of those training to

be artists. Even worse and often, emotional, psychological, and physical violence have been embedded in the arts training itself [1, 4, 5].

Huecker, King, Jordan, and Smock define the features of family and domestic violence in the bullet points below, as well as cite other important statistics: [3].

- Abusive behaviors in which one individual gains power over another individual.
- Intimate partner violence typically includes sexual or physical violence, psychological aggression, and stalking. This may include former or current intimate partners.
- Child abuse involves the emotional, sexual, physical, or neglect of a child under 18 by a parent, custodian, or caregiver that results in potential harm, harm, or a threat of harm.
- Elder abuse is a failure to act or an intentional act by a caregiver that causes or creates a risk of harm to an elder.
- Domestic and family violence includes a range of abuse, including economic, physical, sexual, emotional, and psychological, toward children, adults, and elders.
- Fifty percent of women seen in emergency departments report a history of abuse, and approximately 40% of those killed by their abuser sought help in the 2 years before death.

Additional impactful statistics from the National Coalition Against Domestic Violence state, "According to the Centers for Disease Control and Prevention's most recent National Intimate Partner and Sexual Violence Survey" (survey dated 2010): [6, 7].

- 1 in 3 women and 1 in 4 men have been victims of [some form of] physical violence by an intimate partner within their lifetime.
- 1 in 5 women and 1 in 7 men have been victims of severe physical violence by an intimate partner in their lifetime.
- 1 in 7 women and 1 in 18 men have been stalked by an intimate partner during their lifetime to the point in which they felt very fearful or believed that they or someone close to them would be harmed or killed.
- For the second year, close to a majority (47.6%) of IPV homicide victims were LGBTQ men and a majority of homicide victims were identified as gay (47.6%) and lesbian (28.6%).
- Gay men were more likely to require medical attention and suffer injuries as a result of IPV. Gay men were close to two times (1.7) more likely to require medical attention and 16 times more likely to suffer injury as compared to individuals who did not identify as gay men.

While the statistics of representation of domestic violence in Performing Arts contexts are not the primary purview of this research, these numbers should be carefully contemplated when considering the experiences of the diversity of gender and sexual identities our students [8].

In 2019, the Association of American Universities released a Campus Climate Survey on Sexual Assault [9]. The AAU's aggregate report stated, "Sexual assault

rates at the 33 participating universities ranged from 14 to 32 percent among undergraduate women. Georgetown University is at the top of that range, with an assault rate of 31.2 percent…" [10] These statistics tell us that, a quarter to nearly a third of the female-identifying students in our higher education classrooms and studios, would have lived through a sexual assault on campus where they are studying.

The current political backlash against the acknowledgement of historic inequities and oppressions (including the scrubbing of the CDC website where I accessed statistics and sources just months ago) cannot erase the necessary and accomplished research of many educational, medical, and therapeutic associations. The National Child Traumatic Stress Network (NCTSN) published "*Addressing Race and Trauma in the Classroom: A Resource for Educators" (2017),* defining key terms and providing guidance as to how educators can recognize the effects of various kinds of trauma in their students [11]. This resource underlines racial trauma (also called "race-based traumatic stress") on "stressful impact or emotional pain of one's experience with racism and discrimination (Carter, 2007)" [11, 12]. Though the resource looks at how this kind of trauma is significant during students' developmental phases it makes clear that, "Common traumatic stress reactions reflecting racial trauma include increased vigilance and suspicion, increased sensitivity to threat, sense of a foreshortened future, and more maladaptive responses to stress such as aggression or substance use (Comas-Diaz, 2016)" [11, 13].

Hypervigilance or being in a constant state of over alertness, are a common manifestation of stress and trauma. These coping mechanisms can be developed at a very young age, often an outcome of what is known as ACES: Adverse Childhood Experiences [14]. The ACES TOO HIGH website is a rich resource for educators and lay people wanting to know more about the original Kaiser Permanente ACES study and ongoing findings [14]. No recounting of the possible stressors students may be navigating is complete without mentioning the extensive research on tracking of ACES to date. A few impactful examples are:

- As the number of ACEs increases, so does the risk for negative health outcomes, both physical and psychological [14].
- A person with 4 or more ACEs is: [14]
  - 2.4 times more likely to have a stroke
  - 1.9 times more likely to have cancer
  - 12 times more likely to attempt suicide
  - 7 times more likely to be an alcoholic

As performing arts educators with little knowledge or control of what our students might have experienced before coming to our learning spaces, what might be our biases and assumptions about their behaviors? How are we observing and interpreting the residue of outside stressors and trauma in bodies, and what tools do we have at our disposal to create secure, optimal learning spaces? Eschewing the "leave your problems at the door" model, the NCTSN resource states:

> Students cannot divorce themselves from events in their homes or communities simply by stepping into the classroom. This is especially true for students of color who come from

> communities that experience the effects of historical trauma and ongoing racial injustice. Educators are in a unique position to open up discussion about these issues, to provide guidance and modeling for constructive expression, and thus create the space for a trauma-informed classroom [11]

The above assertion strongly affirms that the reverberations of students' embodied experiences in their families and other various communities cannot be "turned off" just by entering the supposed neutral space of the classroom. Arts educators are often specialists in their fields, and yet generally not trained in the greater bio-psycho-social aspects of creating safe and productive learning contexts.

Simple Overview of the Automatic Nervous System (ANS), Polyvagal Theory, and Neuroception

A baseline understanding of aspects of the human nervous system is useful for educators in order to understand the applied AT principles and how they complement current neuroscientific and psychotherapeutic research is important. Understanding the complex choreography of balance between the Sympathetic (SNS) and Parasympathetic (PNS) parts of the Central Nervous System (CNS) can help educators consciously adapt the dynamics of the classroom. Optimal learning can only occur when the nervous systems of both the instructor and the students are adaptive and resilient.

A former student and her co-author, now a science writer for Live Science, Lanese and Dutfield, wrote in their article, *Fight or Flight: The Sympathetic Nervous System,* giving a brief, accessible overview of 2 parts of the Autonomic Nervous System (ANS). They categorized the ANS in 3 parts: Sympathetic, Parasympathetic, and Enteric [15–17].

They write, "The sympathetic nervous system makes up part of the autonomic nervous system, also known as the involuntary nervous system. Without conscious direction, the autonomic nervous system regulates important bodily functions such as heart rate, blood pressure, pupil dilation, body temperature, sweating and digestion" [16].

The SNS is in charge of "the body's rapid involuntary response to dangerous or stressful situations" and quickly releases hormones to heighten alertness and elevate the heart rate, delivering ample, immediate blood supply to the skeletal muscles [16]. Respiration accelerates, bringing "fresh oxygen to the brain, and an infusion of glucose is shot into the bloodstream" for an instant influx of energy [16]. The ANS's converse counterpart, the PNS, "works to calm the body down" and "encourages the body to 'rest and digest'" with blood pressure, respiration, and hormone levels returning to normal levels [16]. Lanese and Dutfield remind, "In short bursts, the body's physical stress response can be useful and grant an energizing boost of mental focus. If prolonged, however, the stress signals whizzing through the body wreak havoc." The nervous system is not designed to be chronically activated;

rather, like all of our bodily systems, it is meant to respond to stressors and then recover and rest.

In *Anatomy Autonomic Nervous System*, Waxenbaum, Reddy, and Varacallo state, "The vagus nerve, CN X [the 10th Cranial Nerve], makes up about 75% of the PNS and provides parasympathetic input to most of the thoracic and abdominal viscera" [17]. Kenny and Bordoni point to the vagus nerve as being the "longest in the body" and affecting multiple organ systems and "regions of the body such as the tongue, pharynx, heart, and gastrointestinal system." [18] The vagus, Latin word for "wandering," is extensively connected throughout the body, and responsible for bringing us back to a quieted state after the urgency of the SNS fight-or-flight demands according to Stephen W. Porges, the author of the Polyvagal Theory (PVT) [19]. Some scientific communities often refute PVT for lacking robust empirical evidence, but it is considered to be a useful framework for therapeutic applications that address emotional regulation and trauma recovery in social science circles [20].

Porges posits that the vagus nerve in mammals—and humans in particular—has evolved to include a myelinated circuit that partners with the SNS to dampen its defensive intensity and to provide alternative coping pathways that emphasize social connection and empathy [19], p. 78–80. Though PVT's empirical accuracy is still up for debate, many apply the concept of *neuroception* successfully in trauma treatment. Neuroception is the process by which the body subconsciously "reads" the world or environment around us:

> The detection of a person as safe or dangerous triggers neurobiologically determined prosocial or defensive behaviors. Even though we may not be aware of danger on a cognitive level, on a neurophysiological level, our body has already started a sequence of neural processes that would facilitate adaptive defense behaviors such as fight, flight, or freeze [19], p. 32

When students unconsciously perceive the classroom environment, teacher, or fellow students as threats, according to Porges, two possible stress responses are set in motion. One readies the student for fight, flight, or freeze strategies (dorsal/non-myelinated vagal branch), while the other relies on navigating social cues and awareness of bodily sensations to connect and adapt *to* the environment instead of fleeing it (ventral/myelinated vagal branch) [19], p. 32–3. Porges also asserts, "A history of abuse may 'tune' the nervous system to be cautious and prepared for defensive fight-or-flight behaviors, even when real danger does not exist" [19], p. 259–60. When students have unknown histories of abuse, they may be primed and prepared to perceive threat where there may be none.

In shared anecdotes with university arts educators before and especially "post" COVID-19 pandemic, we have discussed how, at times, we find ourselves not being able to interpret or navigate student stress responses successfully. Some of the effects of dysregulation we are seeing manifest as procrastination and other avoidant behaviors on a spectrum; one end includes the struggle to read, comprehend, and complete work by reasonable deadlines, and the other end has escalated to excessive absences or dropping out of attendance and communication entirely. Faculty also discuss experiencing similar equivalent behaviors in ourselves as we experience

burnout or are overwhelmed by our own cultural, institutional, and personal stressors.

What tools can help both students and teachers "down-regulate" our defensive behaviors, and instead, help us to foster positive social connections that strengthen the safety, groundedness, and security of our learning contexts? [19], p. 262. What skills can we build so our collective nervous systems can be adaptive and in relationship to what is happening in the classroom and studio moment to moment, instead of trapped in cycles of overactivation or resigned collapse? How can we design and support "prosocial" pedagogies? Porges states, "To switch effectively from defensive to social engagement strategies, the nervous system must do two things: [1] assess risk, and [2] if the environment looks safe, inhibit the primitive defense reactions to fight, flee, or freeze" [19], p. 33.

How the Principles of the Alexander Technique Support Regulation

The Alexander Technique (AT) is an over-century-old educational method developed by Frederick Matthias Alexander (often referred to as F.M. Alexander), a noted actor who lived from 1869–1955 [21]. In his revolutionary work and research, he coined the term "psychophysical." He asserted it was "impossible to separate 'mental' and 'physical' processes in any form of human activity" and called for education that cultivated and valued what he called the "whole self" and "psychophysical unity" [22, 23], p. 2, 49. One of Alexander's close contemporaries, twentieth-century educational theorist John Dewey, wrote the forewords to several of his books and, influenced by F.M.'s work, promoted educational environments where students could learn in active, collaborative, and socially integrated groups [22, 23].

Often, the word "technique" is associated with specific systems, exercises, or aesthetics. The Alexander Technique is unique in that while it has some physical movement and "procedures" associated with its practices, it's the practitioner's adherence to a set of organizing principles that *is* the technique. The principles are simple in definition, but not necessarily easy to apply directly or immediately. The American Society for the Alexander Technique (AmSAT) calls it "mindfulness in action"; the prevailing idea being that if we bring purposeful consciousness to habitual ways of thinking and moving, we develop skills of awareness that foster physical and mental wellness, unlimited opportunity to physically reorganize, and more overall agency in the choices we make moment to moment [24].

Porges's idea of neuroception—the body-mind's ability to detect safety or danger and adapt effectively—and the principles of AT are highly compatible, inherently providing skills and pathways for the equilibrium the nervous system craves. One of the crucial principles is called *Inhibition* or what might be known more commonly as non-reactivity. The word comes from the Latin for *restraint* and,

unlike the Freudian term, has little to do with repression [25], p. 382–3. Rather, in physiological contexts, the term refers to "the restraining of an organic process, or the prevention of its initiation by neurological or physiological means" [25], p. 382–3.

In AT, Inhibition refers to an inherent skill that animals (i.e., humans) possess by which they can choose not to react to a stimulus. In Western culture, this skill is often overridden by "education" and in favor of cultural conformity. Family and educational contexts often *demand* reactivity. Practicing AT helps to rediscover this inherent feature of the nervous system. In its basic introduction, Inhibition allows the individual a moment's pause in which to choose *whether* to respond to a stimulus and, if so, *how* to act in response (or not). The children's games Simon Says or Red Light, Green Light are excellent examples of how a stimulus can, as Alexander stated, "always put you wrong." For example, in Simon Says, the moment we react without thinking is the moment we're out; the desire to act overrides our thinking [26], p. 8.

In an AT lesson, the teacher guides the student through simple, familiar, and generally automated movements, such as sitting down in and standing up from a chair. However, the teacher also surprises the student by suggesting varying and perhaps unfamiliar rhythms, pathways, and mechanics. How many different ways are there to sit and stand beyond the ones we habitually choose? The idea is that moments of unfamiliarity will be an inevitable stimulus to which students will bring their habits and reactivity, and then have the safe, low-pressure context of the lesson to expand their capacity to be less reactive (e.g. anxious, confused, bored, unconfident, etc.). An AT lesson provides the student time to wait and consciously explore what is happening in the present moment.

The beautiful thing about AT is that the teacher has generally spent 1600 certification hours across 3 years of training in that foundational principle (and all the others). Teachers model inhibition and transfer their experience through presence and touch; they can provide the student with the inhibition that the student does not yet possess. Inhibition says, "Wait a moment…you have a choice. Perhaps stop what you are doing and wait. Perhaps make another choice. Or, perhaps keep doing what you were doing, but this time with conscious purpose and direction."

Embodied Experience: Teacher and Student Inhibit Together

In Performing Arts training and practices, the relationship between the teacher and student can often be fraught. Hierarchical and authoritarian pedagogical models abound across art forms, and the politics of power and positionality are often woven into the teaching and assessment dynamics. Given the possible ACEs, interpersonal, family, race, and gender-based violence that performing arts students may already be invisibly vying with, heightened reactivity to the student-teacher relationship may be present before the "technical" or skill-building complexities are even at play.

In order to co-create a space where the nervous systems of both the teacher and student can adapt and regulate, both must bring conscious awareness to thought habits and assumptions. In AT, it is the teacher's job to model a baseline of Inhibition so the student can grow in the same skill. What does that look like? Below, I suggest a simple partnered exercise that I present often. The roles of "teacher" and "student" can be actual or role-played. I enjoy watching students assume the "teacher" role; they often reflect how they are interpreting their teachers' habits of attitude, gaze, posture, and gesture. The role-playing can mimic any teaching skill-building context from a private lesson to a larger group class. The person in the student role should feel "assessed" or "watched." The person in the teacher role should play that of the "assessor" and the "watcher." At some point, the teacher should move into closer proximity as if to give a correction or comment.

Phase 1:

Student role:

1. Ready yourself for the "activity," e.g. the dance step, the note or passage to be played or sung, the monologue to be delivered, etc. Your teacher is there watching.
2. Notice patterns thought and the sensations in your body that arise when you go to "do" the activity.
3. Did you add extra muscular tension or stop breathing freely even from the thought of doing "the thing" before actually doing it?
4. Are you able to remain calm and grounded and stop if/when things go wrong?
5. Are you forcing yourself to continue or push through something without feeling what is happening in your body or noticing if you are anxious?
6. What habits of body and thought are you noticing?

Teacher role:

1. As you observe the "student," notice if you quickly stop paying attention to yourself and how your own body feels, especially if you want to "correct, help, or fix."
2. When you are observing or moving nearer to the student, is your breathing free, or are you adding any extra tension or other habits?
3. As you observe, instead of losing yourself in what you want to see in the student, can you instead *embody* what you want to see?
4. If you notice something "wrong," can you wait before addressing it? Can you feel the compulsion to "fix?"
5. Is the pull toward correction or change more important than staying with yourself?
6. What habits of body and thought are you noticing?

Phase 2: switch roles and repeat.

Phase 3:

1. Decide which role you would like to stay with.

2. In this repetition, both roles inhibit reactivity to being observed (student) and assessing (teacher), and practice staying with primarily observing the self.
3. Teachers: model and maintain what you hope to convey and stay with that, especially when in proximity to the student.
4. If the student consents, can both the teacher and student stay with observing their own experiences while the teacher offers a gentle, guided touch?
5. Both: what happens when you approach or are approached? What automated habits and bodily sensations can you observe?
6. Students: inhibit and stay with your own sensations, presence, and agency. Can you feel your feet on the floor? Are you breathing freely? Are you jumping to change yourself before you even know what the teacher is about to suggest? What would it be/feel like if you didn't change anything?
7. Students: As the teacher approaches, think of a question to ask or a comment you can make to yourself (**don't apologize**). Ask the question out loud, using your voice.
8. Both: What were the differences you experienced between Phase 1 and Phase 3?
9. Share with your partner what you observed about yourself (NOT about them).

In this exercise, many habits emerge, and it is fairly easy to see how reactive both roles are before any actual "instruction" has commenced. If we are affected by the stimuli inherent in the teacher-student relationship, how much more complex are the issues when we are learning the performance skills in the art forms to which we are dedicating our passion, time, and money?

Faulty Sensory Awareness/Appreciation

Another principle of the AT that has a close relationship to neuroception is called Faulty Sensory Awareness (or Appreciation) [21]. How we have been acculturated, educated, and conditioned by multiple environments, even if highly stressful, may feel "normal." Nervous systems cope the best they can, and habits are adaptive to environments. Since habits feel "normal," sometimes a change in what Alexander called bodily *use* or overall experience feels uncomfortable or wrong [23]. Faulty Sensory Awareness can manifest in a misinterpretation of the relationship between body, environment, and task.

An example of this is in a particular practice in my dance pedagogies. With students' consent, for example, in a ballet technique class, I often take "before and after" photos when I emphasize spinal alignment. If a student's weight distribution is very forward on her toes, I encourage a shift slightly back in space with the weight borne more over the front of the heel bone. I would do this with a private AT student as well. In making this change, the student might experience a sensation of falling backward and feeling disoriented or unstable, even if her alignment is now more balanced and less muscularly tense. I take a photo of what "feels right" to her—weight over her toes, pelvis pushing forward, overly arched lumbar spine,

with gripped hip and leg muscles—and then a photo of what feels "wrong." In the photos, she is surprised to see what her classmates have already vocally confirmed: what feels "wrong" looks much less affected and distorted than what feels "right."

Being aware that what feels "right" isn't always *best* takes neuroception into serious account and requires a healthy practice of Inhibition. With space to wait and consider available choices, instead of defaulting to habit, one can recalibrate the sensory systems from both the inside (enteroception) and the outside (proprioception) and *reset* to a readjusted "normal" that honors and integrates the processing of new information, adapting the whole self accordingly [27, 28]. It is possible to simultaneously pay attention to and trust our sensory systems while also questioning whether we are interpreting the information accurately. Has it been subjected to habitual fight, flight, freeze responses that keep us from feeling safe and free in our bodies and learning environments?

This teaching example refers to another of the AT principles that can help keep students oriented in their bodies and space, Primary Control [21]. London-based AT teacher Hilary King shares, "…Alexander used the term to refer to the way in which our Head/Neck/Back relationship is a primary influence and dynamic organizer, for the coordination of our whole body mechanism and all our movements" and, "This subtle control is only possible when we do not interfere by tightening our neck muscles, but allow the head to balance freely on the *atlanto-occipital joint* at the top of the spine." [21] In a world where the use of screens dominates in our computing, use of cell phones, and even in cars, the temptation to posturally adapt to technologies can be overwhelming and become very unconscious.

Educators and students in the arts grapple with postural disorganization and the interference of hypertonic, overly muscular approaches to moving and playing. Alexander opined, "You translate everything, whether physical or mental or spiritual into muscular tension" [26], p. 12. He believed that conscious organization and freedom in the head and neck was the "master reflex in coordinating the whole psychophysical organism" [21, 29]. The 12 pairs of cranial nerves pass from the brain through the large foramen at the junction of the skull and the first cervical vertebra (atlanto-occiptial joint). Chronic muscular rigidity and tension affects the efficiency of those crucial nervous system highways that "send electrical signals between your brain and different parts of your head, face, neck, and torso. These signals help you see, smell, taste, hear, and move your facial muscles" [30].

Keep in mind that the vagus nerve is the tenth cranial nerve—the longest in the body—is the primary nerve of the PNS, and provides pathways between the CNS and many organ systems, receiving and transmitting the signals of safety or lack thereof. Alexander's insistence on keeping the head/neck consciously free and available for movement in any task most probably enhances a better chance of accurate neuroception and consequent nervous system regulation—a process that is so often below the surface of conscious thought.

Embodied Experience: Breath, Movement, and Stress (Interference in Primary Control)

1. Close your eyes and tune in to your breathing.
2. Locate the atlanto-occipital joint where the skull meets the 1rst cervical vertebra (walk your fingers from the holes in your ears around to the back of your head until they meet at the base of the skull). You may leave your fingertips gently on/around your skull to get the sense that your hands are moving your own head.
3. Begin to gently and as freely as possible move your head through small nodding, tilting, and rotation actions without any predictable rhythm, looking down and up, side, to side, etc. Keep your eyes open.
4. As your hands keep moving your head, now add in the memory of something unpleasant (not traumatic)—something slightly annoying or stressful. Stay with that memory for a short time and then let the memory/thought go but keep the movement going.
5. What happened to your head and neck movement when the stressful thought was added?
6. What bodily sensations did you observe?
7. What emotions came up?
8. Was there anything difficult about the experience?

I often present this exercise to be done in partners, with one partner gently moving the other's head while the unpleasant memory filters in and out of the experience. While we might not be able to sense extra tension in ourselves, a partner surely does. Very often, when the unpleasant memory enters the scene, range of motion decreases, movement becomes impeded or smaller, breath is held, and additional muscular tension increases throughout the body.

If these diminished outcomes result from a relatively small, annoying thought and interfere with small, uncomplicated movements, what are the interferences and effects of heightened levels of expectation and stress associated with professional-level arts training in tandem with already existing cultural and personal stressors? The thought of "neck free" is a great Alexander shorthand with which to start amid more complex constellations of physical learning.

Embodied Experience: Where's My Nose? (Inhibition, Faulty Sensory Awareness, and Primary Control)

This experience is designed for the participant to begin juggling the three mentioned AT principles together in one (mostly) simple movement task.

1. Sit or stand comfortably and close your eyes. Spread your arms wide, reaching them out and away to your sides ("I'm flying).

2. As quickly as you can, touch the tip of your nose alternating the fingers on your R and L hands (dominant/non-dominant), i.e. thumb, R & L, index finger R & L, middle finger R & L, ring finger R & L, pinky finger R & L.
3. How did that go? Were you 100% accurate in finding the tip of your nose? Did you interrupt the freedom of your breathing? Did you use muscles or extra tension you didn't need to?
4. Do it again, still quickly, but this time, before beginning, pause, breathe, and spend a moment to mentally map your nose, both imagining it and sensing it (Inhibition).
5. In the small amount of time between each touch, keep breathing, keep your atlanto-occipital joint free of extra tension (bobble head), and continue to map your nose.
6. How did it go that time?
7. Was it even a little qualitatively different, and if so, in what way?

Circling Back to Habit

Through simple means, the 3 embodied exercises may have made you aware of some habits with which you cope with unfamiliar stimuli, as well as some "go-to" responses. It is important to remember that our habits are not *us* but rather nervous system strategies we developed to cope with specific contexts throughout our development. Like stress and trauma, even when those contexts are no longer present, habits persist. If, as educators and lifelong learners, we accept this for ourselves, how much more might we offer space to hard-working students pursuing their talents and passions?

Habit and affect must not be interpreted as conscious, intentional, and/or personal on the student's part (or the teacher's!). Rather, in numerous instances where there are misinterpretations of attitude or effort, it is most likely a faulty perception of many intersecting variables from body to environment, to context, to personal history. It is important to bridge fight, flight, freeze responses with prosocial and community-building activities that re-pattern students' fear-based anticipation, reactions, and panic.

Every student develops and matures at a different pace. Offering training and class solutions that are body-based and rooted in respect for a developmental spectrum keeps students aware, in the present moment, and connected to the teacher and class community. Some especially traumatized students may not be developmentally ready for more space and are strangely relieved by authoritarian methodologies where they bear less personal responsibility. In those cases, sometimes clearer, bolder parameters or edges are needed—independent critical thinking is hard for this group. The process of learning to think psychophysically/somatically and critically can engender anxiety, especially if there have been chronic, harsh repercussions or punishments for being "wrong."

I propose that students need a class context (part of class, a whole class, etc.) that provides time and space for inhibition and mindfulness. Somatic approaches such as AT that provide that kind of time allow the students to become familiar with their minds instead of trying to predict the teacher's. If there is class time that is designed to provide extra space amid the "have to" requirements curricula often impose, students can begin asking themselves: "In this moment, what is happening?"

Teaching cues that lead to self-awareness and social connection might be simple physics questions. For dance, that might look like attending to some of the concepts from the Laban Movement Analysis vocabulary alongside AT principles: "Am I falling? Where (space)? Am I going too fast? What pace is needed in this moment (time)? What am I sensing in my joints/muscles (weight/mass/gravity)? How much energy is needed (or not) right now (flow)?" [31], p. 91–114. Throughout class, I encourage students to ask these kinds of questions, believing that staying in the inquiry of the present moment activates a process of building the skill of non-reactivity/Inhibition (even if for a fraction of a second) before the student gives in to the impulse to change, react, or move.

OSO Model: Observe, Support, Optimize Options

Complementary to the AT principle of Inhibition is Dr. Martha Eddy's Dynamic Embodiment[SM] Development Cycle: Observe/Support/Optimize Options [32]. This process supports teachers and students in all fields and is wonderfully helpful in arts teaching. From authors Eddy and Smith's book *Dynamic Embodiment[SM] of the Sun Salutation*, OSO is described in italics below [32], p. 24–5.

As in AT, OSO suggests that attention cyclically goes between self and other [32], p. 24–5. In the category of OBSERVE, the teacher can monitor patterns, habits, and trends in the individual student and class.

Keenly OBSERVE using all senses in order to acknowledge and accept another's behavior (remaining non-judgmental).

- *What do I/you do?*
  - *Tactile*
  - *Proprioception*
  - *Visual*
  - *Auditory*
  - *Gustatory*

In the SUPPORT category, inhibit inclinations to immediately react to solve problems, intervene in habits, "fix," etc. As guided in the first embodied exercise, the teacher can 1. wait before approaching or speaking, 2. ask for permission/consent, 3. try not to "fix" but rather embody the desired qualities and skills before considering verbal or tactile guidance. Does this kind of inhibitory practice seem difficult? If so, then consider practicing more!

Sensitively provide mind-body-spirit SUPPORT—identifying and appreciating strengths and providing care for under-resourced parts or aspects of the self.

- *Support:*
  - *What works now?*
  - *What feels good?*
  - *What is supportive?*

In the category of OPTIMIZING OPTIONS, teachers can call on the library of their vast experiences and the education and tools at their disposal.

Explore diverse OPTIONS in behavior. OPTIMIZING options involves exploration, variation, a child-like attitude of a beginner's mind. This creativity leads to us feeling free to make choices. Employing different strategies provides opportunities for new sensory experience to integrate and new movement-behavioral choices to emerge. This model works for movement of the body and expansion of the mind. It also is a metaphor for opening to a wide range of emotional expression.

- *Options (moving toward Change)*
  - *Play*
  - *Creativity*
  - *What Choices?*

Conclusion: Thoughts on Modeling, Vagal Tone, and Prosocial Class Design

Modeling Inhibition and non-reactivity for students—especially those affected by high-level stress and trauma—fits well into the OSO SUPPORT category and provides unique and often not expected spaciousness in the student-teacher dynamic. For some students who are maladapted to authoritarian methodologies that bulldoze consent, being on the other side of a teacher who is non-reactive and practicing Inhibition may feel unmooring or like being ignored. Additionally, I have observed a common misinterpretation that non-reactive instructors and colleagues are sometimes perceived as potentially incompetent or lacking appropriate energy or "passion."

As I circle back to the original question, "In Performing Arts teaching and learning, are stress-based habits, for example, excess muscular tension, mistaken for and even demanded as reflectors of professional performance discipline?" I would like to add another related question: "In our classrooms and studios, do we allow students time to practice Inhibition or do we see them taking extra time as disrespectful, inattentive, or worse, insubordinate?" How might such time be built into teaching and learning? What would happen if there were more time, or we made more time?

This time and space for increasing students' capacity for resilience can also be part of building community and increasing vagal tone, "the measure of vagus nerve activity." [33] The more active and effective the PNS or parasympathetic response, the better the "tone." [33] Since the vagus nerve is connected so extensively to so many systems and structures that regulate cardiac, digestive, and immune responses, good vagal tone is essential for overall health and wellness [33].

Broadening vocabularies and identifiers of SNS responses beyond "fight, flight, freeze" also helps identify subtler indicators of stress and trauma that can more fully inform our observations. Somatics and transformative justice pioneer and author of *The Politics of Trauma: Somatics, Healing and Social Justice*, Staci Haines, has added greater clarity to definitions of stress-related emotions and behaviors. She makes these associations: fear/flight, anger/fight, freeze/invisibilize, and adds *fawn/submission,* which I have found helps me identify situations in which students and colleagues try the tactic of appeasement to avoid conflict or stress [34].

Since engaging more deeply in this research, I have rethought my course designs and assessment practices and have found ways toward designing time and space for developing vagal tone, promoting prosocial stress solutions, and helping students find ways out of the maze of "fight, flight, freeze, faint, fawn" when they experience the stressors of their training.

Some practices I now regularly incorporate in my movement practice classes are below:

- Offering 2 min of mindfulness meditation or Constructive Rest at the beginning of class.
  - In their reflective writing, students express deep appreciation for holding the time and providing them the opportunity to drop down into the body and somatic self. They often take an initial sensation inventory/body scan and then return to it again to see if anything has changed.
- Teaching breath patterning from various practices, including Brain-Based/Neural Integration practices from Z-Health that I learned from intrepid educators Dominika Gaines and Lisa Thorngren [35].
  - An example: "In" breath for 4 counts, hold for 2 counts, exhale out for 6 counts. To activate the PNS, there needs to be a minimum of 5 repetitions with the "out" breath being longer than the in breath. I usually do 10 repetitions and students report identifiable changes in their "before" and "after" self.
- Adding humming, sighing, or vocalization during movement practices—the vagus nerve connects to the vocal cords and other structures in the throat area. I also encourage vocalization through urging students to ask questions in class, out loud, and at any time.
- Taking a brief time for visualizations that start with compassionate tending to the self and then expanding the field of awareness to offer generosity toward others (e.g., I generally ask students to think of something kind and sustainable toward themselves and then extend that to others).
- Integrating improvisation and play. While historically well known in Theatre and Dance practices, this approach may be less familiar in other arts training practices.

- Continually challenging my mental habits about how I think students should present in the learning space, i.e., is it ok for them to be as they are in any developmental stage, or must they change to engage in "proper" etiquette for training?
- Establishing in syllabi the ground rule that having bodily and personal needs is acceptable, and "training" should not override or deny the body's needs. This includes students having unspoken agency to go to the bathroom without asking for permission.
- Challenging the idea that leaving class to take care of one's body-mind is disrespectful or poor professional etiquette.

I offer these practices in the hope that I might aid in resetting my students' neuroception to a baseline of perceived security so they have the most access possible to the curiosity and creativity they need to make discoveries and learn, rather than cope with unconscious habits of perceived threat. Through applied Alexander Technique principles and other mind-body practices, it is possible to design arts pedagogies that facilitate a "prosocial" neurobiology and the co-creation of resilient class communities that value asking questions (out loud), collective critical thinking, and foster generous space for students to embrace their potential and become the expressive and skilled artists they are training to be.

Author's Note I would be remiss not to mention past and pending publications wherein an interested reader could discover more applied research and information related to some of the themes in this chapter. In publication currently are: (1) A book chapter, "Conditions for Cognizance: Ballet Class as a Reflective Embodied Lab" in the forthcoming Oxford Handbook of Ballet Pedagogy (co-author Luc Vanier), and (2) A new book, *Moving Into Skill: A Framework for Integration* (University of Illinois Press, co-authored by Rebecca Nettl-Fiol and Luc Vanier). Already published and available book chapters are: (1) "Ballet Aesthetics of trauma, development and functionality" in the book *(re):claiming ballet* (Luc Vanier co-author, Intellect), (2) "Distilling Dart: Minding Bodily Approaches to Performance Through a Framework for Integration and the Alexander Technique" in *Perspectives in Performing Arts Medicine Practice: A Multidisciplinary Approach* (Springer), and (3) "The Subtle Dance of Developmental Self-Awareness with New Media Technologies" in the book *Through the Prism of the Senses: Mediation and New Realities of the Body in Contemporary Performance. Technology, Cognition and Emergent Research-Creation Methodologies* (Intellect).

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Elizabeth Johnson (MFA, GL-CMA, M.AmSAT, RSME/T, RYT200) is a performer, choreographer, educator, Laban/Bartenieff Movement Analyst, certified Teacher of the Alexander Technique (AmSAT & ATI), and Registered Yoga Teacher. She teaches and presents nationally and internationally on dance/movement pedagogies and somatics that center developmental movement, prosocial/trauma-informed education, and critical perspectives.

Her creative work—rooted in autobiography and her love/hate relationship with popular culture—aims to subvert cultural tropes regarding propriety, relationships, and bodies as objects/commodities. From 2004 to 2015, her company, Your Mother Dances, featured her choreography as well as produced national and regional guest artists; her work has been seen in New York City, Washington D.C., Chicago, Minneapolis, Milwaukee, and beyond. She also performed professionally with David Parker and The Bang Group (NYC), Sara Hook Dances (NYC), and Molly Rabinowitz Liquid Grip (NYC).

Johnson has co-authored/authored three book chapters featuring applied Alexander Technique and developmental movement pedagogies and, with co-authors Rebecca Nettl-Fiol (University of Illinois) and Luc Vanier (University of Utah), is awaiting the imminent publishing of their book, *Moving Into Skill: A Framework for Integration* (University of Illinois Press). The book features an emergent movement patterning and analysis tool distilled from Alexander Technique, the Dart Procedures, and other seminal developmental movement and somatic practices. Johnson is an Associate Professor and Chair of the Department of Dance at the University of Maryland, Baltimore County (UMBC).