

Complexity, Teacher Education and the Restless Jury: Pedagogical Moments of Performance

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This article explores the generative relationship between complexity, performance, and teacher education. In a moment of crisis, a drama educator comes to recognize the potential of role drama as a teaching strategy to introduce student teachers to the complexity of teaching and learning with students. With the assistance of cantankerous judge and a restless jury, the author illustrates how exploratory spaces of performance bring participants to the “edge of chaos” where new learning and insights emerge. The use of role drama as a strategy in teacher education creates valuable learning opportunities for student teachers that encourage mindful awareness and reflective practices.

"... the prodigal son returns and his father announces an evening of festivities. The elder son, furious, slouches off to the distant fields to nurse his jealousy ... how could his father so quickly forgive his younger brother?" The speaker's voice lowers as she captures the tension of the moment. Twenty-four student teachers and I lie prone on the floor, sprawled in various forms of relaxation; limbs askew, eyes firmly closed; our assigned task is to visualize the unfolding story.

– from a role drama created by student teachers, Summer 2003¹

Visualizations, such as the one above that begins the telling of the role drama woven through this text, invite participants to engage with what is not yet known. We close our eyes, we are encouraged to imagine a scene, an action, a relationship that unfolds in its telling. Visualizations have a multiplicity of learning outcomes, not always those that the teller anticipates. As I lay listening, curious about the role drama that we would together create and play within an imaginary world brought forth by our actions in role, I reflect on my own role as a teacher educator.

Inevitably, the impossible question arises:

How might I, as a teacher educator, share with student teachers, the complexities and complicities inherent within classroom teaching?

How do I navigate and negotiate the presumptions, assumptions, expectations, illusions, disillusions, and lived experiences of the student teachers now sprawled on the classroom floor. Like philosopher David Applebaum's blind man who stumbles to a halt against an unknown obstacle,² I am stopped in my progress. I discover that I am no longer able to travel the illusionary route that we, with good intention, call teacher education. This stop, poised as I am between despair and hope, is simultaneously a moment of risk, and a moment of opportunity.

An unexpected cacophony—a bellowing cow in concert with the plaintive bleats of a sheep (the oral enthusiasms of two students standing outside an open window of our ground-level classroom)—abruptly recaptures my attention. What has happened? The father murdered? Who is guilty?

The Dilemma

*... forget your perfect offering
there is a crack in everything
that's how the light gets in.*

– Leonard Cohen³

As educators, we acknowledge the impossibility of achieving perfection in our teaching endeavors, and yet, always, we seek the impossible. “If only,” the neophyte teacher muses, “I could learn to raise my eyebrow just so, and maintain such a compelling presence, that the minions would fall into perfect rows of acquiescence, after which would follow the most stimulating of dialogues which in turn would render students (and my principal) in awe of the profundity of my brilliant lesson plan.” Such ambition resists a simple telling: learning is a complex slippery endeavor that confounds those who seek to “pin the butterfly” to a specific location.

Our desire for meaningful engagement is embodied in the educational authority⁴ of our presence in the classroom that, we hope, inspires, facilitates, and activates learning. Too often, however, beginning educators assume that educational authority lies in a teacher’s ability to achieve the perfect lesson plan, the perfect classroom management technique, the perfect lecture.

This quest for perfection evolves from the implicit (and oft times explicit) suggestion inevitably interwoven in teacher education programs that the teacher is ultimately responsible for the success or failings of the pedagogical experiences that arise in the classroom. Although his or her endeavors may be derailed by an unruly student, an ill-planned lesson, or a failure to engage students in meaningful work, ultimately, responsibility for success, so the myth dictates, falls on the slim shoulders of the alas, imperfect, teacher.

We scramble to our feet, dazed, blinking in the bright light, and discover ourselves in a courtroom. Black robes with brilliant mantels of scarlet adorn the desks of the defense and Crown lawyers. Who will step forward to wear these roles? An assortment of clothing and props are offered. Slowly, by choice, we inhabit the roles of the younger son, the elder brother now on trial for murder, the lawyers, the grieving widow, friends, neighbours and relatives, and members of the jury. I have a moment of disquiet.

Leonard Cohen, through his song Anthem, admonishes us to release the desire for perfection; and to welcome instead the cracks that are in themselves generative emergent action / sites of learning, illumination, recognition. The

challenge for educators is to learn to embrace teaching as pedagogical action that permits cracks to appear in order for learning to happen. As educators, particularly those whose work is riddled with cracks, we might look to complexity as a possible theoretical underpinning for teacher education.

Complexity Theory: Releasing the Butterfly

I am troubled. I have forgotten to tell this class to avoid role dramas about weddings or courtrooms. Especially courtrooms. Juries get restless: not enough action, endless testimonies, uncomfortable chairs. Too late now, I consol myself as I locate my chair in the jury section; perhaps, this group has anticipated the need to keep the jury actively engaged.

Complexity theory may be introduced by a story of a scientist engaged in designing an accurate weather forecasting computer program.⁵ One day, while running a complex series of calculations on his computer, he tweaked his numbers to the nearest decimal point several spaces past zero. And then he ducked out for lunch. On his return, as the results scrolled across the screen, he was alarmed to see a wild divergence from the numerical forecast he had anticipated. This divergence was caused by what he had considered a minute interruption in the detailed accuracy of his numbers.

Perhaps the classic analogy of the butterfly's wing will serve to illustrate.⁶ A butterfly migrates to Mexico. A single flap of a butterfly's wing causes a minute disturbance that in turn causes increasingly magnified disruptions of air currents until a typhoon emerges in Japan. Complexity theory proposes that any minute change in any dynamic system has a generative impact on a multiplicity of inter-related locations and relationships. Who would have anticipated that a typhoon would have been the result of a butterfly's presence in a distant land? This explains why forecasting the weather remains a knuckle-biting act of science.

Complexity theorist, M. Mitchell Waldrop (1992) in his treatise on complexity theory writes to the multiplicity of interrelationships and interactions within and between systems and their components. Through the interactions between, Waldrop proposes, a dynamic generative space of possibilities unfolds in an "endless dance of co-emergence." (Waldrop, 1992: 12). According to Waldrop, this generative space or what may be called the "edge of chaos" is a location where "components of a system never quite lock into place, and yet never quite dissolve into turbulence, either...the one place where a complex system can be spontaneous, adaptive, and alive." (1992: 12).

Along with Waldrop, many scientists and theorists from a variety of disciplines have contributed to the current intellectual growth industry that is complexity science (including those of us in this journal). Education, in particular, becomes a fertile site for curriculum theorists who seek to release the butterfly from the curricular grid of unit plans to create curricular possibilities, responses, and generative spaces of learning. What matters for education is how complexity offers curriculum practitioners a theoretical underpinning for curriculum-as-experienced.

Complexity theory permits educators and researchers to acknowledge and engage in the multiplicity of complex relationships and interactions that simultaneously embrace and disturb conventional expectations. While we as educators may offer our students pedagogical frameworks for learning and situational environments, we cannot forecast nor control the pedagogical experience and learning that emerge: How often have lesson plans been thwarted by a disruption that in turn leads to new learning not anticipated in our ambitious list of learning outcomes?

A pedagogical commitment to complexity theory requires a new lens through which to view teacher education. Complexity theory compels us to investigate the interplay and interrelationships between learners, phenomenon, object or action of inquiry, context, and environment. The role of the teacher, classroom management, lesson plans—the language of Tyler’s pedagogical frameworks—must be released from their structured order of surety. The pedagogical ambition is to initiate generative engagements in search of possible new learning “on the edge of chaos.”

Curriculum as a pedagogical action / site of learning is to be understood as a co-evolving experience created through the interactions of teacher and students within a context of location, time, and phenomenon of inquiry. As curriculum theorists, Brent Davis, Dennis Sumara, and Tom Kieren advocate that who and how we come to be in relationship with others and our environment is a fluid interactive process.

Far from merely existing relatively autonomously in the same location, individual and environment continually specify one another. Just as I am shaped by my location, so is my location shaped by my presence.

—Davis et. al., 1996: 163

Through complexity, a new understanding of how individuals learn necessitates movement away from the conventional transmission model in which knowledge is viewed as a transferable entity to be transmitted from teacher

to student. Learning is to be understood not as a complicated mental operation but as "...an ongoing *bringing forth of a world* through the process of living itself." (Maturana and Varela, 1992: 11, my italics). "What we do," Francisco Varela says, "is what we know, and ours is but one of many possible worlds. It is not a mirroring of the world, but the laying down of a world ..." (1987: 62).

If we understand our lived experiences as unfolding possible worlds within which learning emerges, we must then pay attention to how we engage in pedagogical encounters, and how we chose to interact with our students within what becomes a co-evolving curriculum of possibility. A new balancing is required in the pedagogical relationship, one that locates educators and students within the tension of ambiguity and the not-yet known. But why, you may ask, is a drama education researcher exploring the possibilities of complexity theory in teacher education?

Performative Inquiry: Stepping into the Edge of Chaos

All rise! the judge enters the room. He bangs his gavel on his desk and proceeds to read a lengthy list of courtroom rules. "

Rule Number One: *Nobody speaks unless I grant them permission. Absolutely no whispering or talking in the court.*" He glares pointedly at the jury bench.

Rule Number Two: *I have sole responsibility for deciding the legitimacy of the evidence presented.*

Rule Number Three: *Food and drinks are not permitted in the courtroom...."*

A jury member and I roll our eyes at each other—this judge is certainly asserting his authority ...

As a drama educator, I have long suspected that drama might be a critical avenue for learning. This suspicion brought me to university in the mid-nineties to investigate the learning that becomes possible through the creative critical interplay⁷ that is *performance*⁸, an investigation which, I soon learned, plays in the curricular interstices of chaos and structure. What happens, I wondered, if drama is introduced as a curricular intervention in the science classroom?

I confidently mapped the route of my doctoral research, but early into the journey, I strayed off-course. Drawing on my experiences as a performing arts educator, the results of a three-year science education research project,

and from the drama education courses I taught during my doctoral studies, I conceptualized and articulated *performative inquiry* as a research methodology: a mode of inquiry in which the researcher or educator engages in performative explorations with participants as a means of investigation and learning.⁹ Little did I anticipate when I stepped off the plane into the misty world that is Vancouver that my quest would lead me into the realm of complexity theory....

Here is the tale of how I stumbled onto complexity theory through performance...

On my first day in university family housing, I meet Lee Stothers¹⁰, my next-door neighbour in family housing, who offers to loan me an ironing board and a book called *Imogologies* (1994). I tell her I am in Vancouver to research drama education.

"I know that children learn while they are doing drama, but it's just not enough to say drama is knowing—I want to find a theoretical underpinning for the work I do in drama education," I explain. We decide to work together to conceptualize performance as a process of cognition.¹¹

"Find out what the etymology of the word performance is," Lee suggests, two weeks later as she photocopies pages from Waldrop's text (1992) on complexity. Slinging my backpack over my shoulder, I scurry off to the library to track down the *The Barnart dictionary of etymology* (1988).

per / form / ance

Locating the dictionary, I retreat to a corner of the library, and open to the page that houses the word, *performance*. Strangely, the word, *performance* offers a curious doubling of complex interplay. The words *form* (ie. structure) and *ance* (ie. action, as in dance) are joined together with the prefix *per*. What is the meaning of *per*? I flip eagerly through the onion-thin pages. Ah, *per* informs the meaning of the adjacent word, which in this case, is *form*. The prefix *per* means *through* so that performance may be read as *through form we come to action*.

But wait! *per* also means *through the destruction of*. Hmm, so then we might also read performance as *through the destruction of form we come to action*. I nibble on the end of my pen. Piecing together this word puzzle, I erupt in a gleeful shout!

If performance is understood as *simultaneously* through form and through the destruction of form we come to action—

Shhhhhh! The librarian gives me a warning look.

And if we understand *action* as "knowing, being, doing, creating"¹² then

performance may be understood as a way of coming to knowing *simultaneously* through form and through the destruction of form.

This is not a definition, this is a possibility!¹³

Young lady, this is a library. I'm going to have to ask you to leave...

Grabbing the dictionary, I dash towards the library exit. At the security bar, I am abruptly halted by electronic beeping.

That dictionary does not leave the premises!

Something is nagging, tugging at my sleeve, whispering, and...yes, I have it!

If we imagine performance as generative action-interaction—a birthing and rebirthing—of coming to know *simultaneously within form and through the destruction of form*, we find ourselves within the generative space located between structure and chaos. This is the space that complexity theorists call the “edge of chaos” where, as Waldrop (1992) explains, patterns of interrelations are continually created and recreated through an “endless dance of co-emergence.”¹⁴.

And it is “on the edge of chaos,” that we *bring forth possible new worlds*. This is where new life emerges, new learning comes into being. And, for those who have engaged in drama education and understand performance as an exploratory process, as in, for example, improvisation or role drama, we can see that participants in role are engaged in the *bringing forth of a new possible world*. What learning becomes possible, as participants shape and are shaped by the imaginary worlds they create and within which they engage?

Performative inquiry then, in which performance is understood as an improvisational space of interaction, may be understood as a co-evolving interaction between participants and their environment within which moments of learning emerge, just as life dances into being within the interrelationships and co-evolving patterns on the edge of chaos.

EUREKA!!

Security guard! Could you please remove that woman from the building!!

I confess, in this writing, that I have perhaps lingered a tad too long on the triumphant moment of my locating the connection between the performance, cognition, and complexity; yet it is the *interplay between* that delights me, resulting in my exuberant literary shout of recognition.

The conceptual underpinning of performative inquiry, as I have chosen to articulate it, proposes that it is through the simultaneous interplay between our experiences as we engage in a role drama or drama exploration through visualization or improvisation, and our lived experience, past, present, and anticipated that we come to moments of recognition, moments of learning which, in turn, illuminate our embodied experience.

Commenting on his exploratory work with his acting company, theatre director, Eugenio Barba explained that initially he thought that he was “in search of a lost theatre.” However, through time he realized “instead I was learning to be in transition. Today I know that this is not a search for knowledge, but for the unknown” (Barba, 1995: 4). By being in the present moment, and listening to the possibilities that unfold, the emergence of the not-yet-known becomes possible.

Augusto Boal, a renowned theatre activist, uses forum theatre to help individuals and communities come to recognition of possible new action. He calls members of his audiences, “spectactors” to acknowledge their participation in the unfolding of their own learning; after playing through a scene of oppression with experienced actors, individual audience members are invited to enter individual scenes to replay the action. Each scene unfolds in new ways, as inter-actions and relationships are simultaneously disturbed and recreated. Boal argues that, “Theatre is change and not simple presentation of what exists: it is becoming and not being.” (1995: 28).

In describing his methods, Boal turns to Aristotle who speaks of a dynamic interaction in which Matter (pure potential) seeks to realize Form (pure act). The movement of things or individuals towards form is what Aristotle calls “enactment of potential.” (1995:8) According to Aristotle, says Boal, there are not two worlds—the ideal and the real—but rather “the world of perfection is yearning, a movement that develops towards its final form” (1995: 8). It is this yearning that moves us to reimagine our lives and our engagements with others in new possible ways.

Drama educator, Gavin Bolton (1992) speaks of the “here and now,” those “spontaneous” and “existential” moments which may unfold in performative explorations such as role drama. According to Bolton when participants “submit” to the fictitious or imaginary world they are creating, the dramatic play is “here and now”; present and narrative in its unfolding as participants experience through form and through the destruction of form that is performance.

Yet, as complexity theory suggests, form is temporal, elusive, unfolding to recreate anew. Performance theorist, Peggy Phelan (1993), proposes that “performance boldly and precariously declares that Being is performed (and made temporarily visible) in that suspended in-between.” Being or coming to learning through performance is the temporal bridging of imaginary play and lived experience. And it is within these meeting places that research becomes possible—a seeking of disequilibrium and temporal balance that spells the not-yet known into being.

Performative inquiry is curious about those moments of learning (elusive and desired) that emerge through performance to inform, disturb, question, or illuminate actions, relationships and/or issues that emerged that trouble, engage, or challenge participants while being in role and/or experienced in their everyday lives. Practitioners of performative inquiry understand that the focus of their research lies not in finding answers, but in realizing possible spaces for exploration. What if? What happens? *The essence of the question, said Gadamer (1975) is the opening up, and keeping open of possibilities* (van Manen, 1990, 1990:43). The quest of performative inquiry is not to achieve answers but to open up spaces of inquiry through which new ways of engaging become possible. This requires a strong component of reflection.

Several years ago, during a talk to our faculty, curriculum theorist Jacques Daignault spoke of his struggle to write a book about his bicycle trip across Canada. However, the non-fiction account he wrote failed to express what he had experienced. It was only when he turned to writing fiction, or what might be called creative non-fiction, that he was able to capture the breath of his experience. It was through “la doublure”¹⁵ of his fictional writing, that his biking experience could be per/formed and shared with others.

For Daignault, the writing of fiction became the underlining of lived experience: it is in the interplay between that allows the “true” experience of lived moments to be (per)formed to interstanding.¹⁶ So it is, in the playing through intersecting spaces and relationships of co-emerging possible worlds that we bring forth together that we come to stops, glimpses, and recognitions which alert us to possible new ways of being and engaging with others.

The learning that emerges through performative inquiry in which students and educators engage in drama activities such as role drama, improvisation, play-building, and visualizations demands mindful awareness. The performative space of role drama, for example, becomes what Jacques Daignault might call an accountmatic text¹⁷, where participants listen for the disharmonies, and possible new learning that emerges in their engagement. Responsibility for the emergent pedagogical experience falls in precarious balance between participants and educator or facilitator¹⁸ in a co-evolving dance of inquiry “on the edge of chaos” as they bring forth new worlds of possibility.

Our judge, while reading his list of rules, expects the jury members to fall into line; he assumes that by establishing and maintaining control, he will be able to successfully direct and impose his will on the court. The role

drama will unfold as expected according to the script he and his colleagues have designed. This intention, however, becomes misshaped by the response of the restless jurors. They desire to participate in a meaningful way, and as a consequence of being thwarted, they respond in role as any restless group of teens trapped in an airless classroom might respond to an authoritative teacher, who chooses to stifle the voices of the disengaged.

Role Drama: Critical Creative Moments of Interplay

Imagine two intersecting spheres constantly in fluid interrelational movement and co-evolution. One sphere represents an imaginary world *we bring forth together through performance*, in this instance, a role drama about the prodigal son and his father's murder. The second sphere represents the "real world"¹⁹ of lived / living experience as shaped and influenced by who we are in our multiplicities of relationships, experiences, cultural and communal histories, and interactions. Now, imagine that this second sphere also represents our lived experience both prior, during, and after the role drama and therefore, simultaneously overlaps (i.e. *la doublure*) while intersecting the "imaginary world."

In the intersection between, "something happens": a crack breaks apart the imagined in role and our individual roles as lived, and a new understanding emerges. Here, in the cross-shading of the intersection, is an action-site of possible learning, a generative space within which "aha!" moments, those moments of recognition or what I call learning, may emerge. And here, too, moments of stop or hesitation or paralysis, realized in the intersection of performance and lived experience, become signposts of learning not-yet-known.

This spherical analogy is a hopeful attempt to illustrate the multi-dimensional complexities (and complicities) of lived experience as experienced whether we are in engaged in a role drama or riding our bicycle down the street and across the country. Alas, any analogy struggles and cannot begin to anticipate the complexity and unexpected that emerges as we engage performatively to *bring forth new possible worlds*, which in turn simultaneously shape and are shaped by our lived experience. Complexity theory itself defies our attempts to diagram its generative coming into being.

Just as we cannot begin to explain "the edge of chaos" by drawing a Venn diagram of two circles, one labeled Order, the other labeled Structure, and cross-hatch the intersection, labeling it the "Edge of Chaos," it is problem-

atic to refer to “imaginary worlds” of role drama, and “real worlds” of lived experience—especially as whatever happens to us during role drama *is* our lived experience. Whether we are performing “ourselves” as a member of the jury in a role drama or as a bicyclist cycling across town or as a teacher in a grade eight classroom, these experiences overlap, inform, interrupt, and recreate ourselves anew in interaction with others and our environment. What is critical to understand is that the interplay between our imaginary play, and the individual and shared experiences of participants simultaneously in role and through their lived experience opens a space of inquiry; a new possible learning beckons to researcher and educator.

Opportunities for learning arise through performative activities such as role dramas, visualizations, tableaus and /or improvisational play. Role dramas, in particular, create multiple opportunities for participants to engage in meaningful learning. Such learning co-evolves through the embodied actions within the role drama, and through subsequent reflections by participants.²⁰ As humans, we inevitably bring an interpretative hermeneutic stance to our experiences, and these interpretations and reflections invite new possible meanings and ways to engage. It is within these spaces of creative critical interplay and reflection that we may come to understand the complexity and complicity²¹ that per / form teacher education.

In a role drama, participants take on roles or positions of responsibility, and together, co-create an “imaginary world” which has a logical coherence in which decisions, actions, and words are performed spontaneously within the moment of doing. A person in role is guided in his/her choices of action or words by the actions of others, and by asking himself/herself: “If I had this job or these responsibilities with these particular concerns, what would I do or say in this situation? How might I respond? If we do this, what will happen?”

In the courtroom role drama, for example, our task as witnesses, lawyers, and jury members was to come to a conclusion about the guilt or innocence of the accused elder son. In role, participants weave a tapestry of accusations, revealed jealousies, concealed agendas, fragmented memories, and fabricated evidence that was challenged, accepted, over-ruled, or deleted from the courtroom transcripts. The only rule for role drama is that participant actions be coherent with the emerging imaginary world as it is being collaboratively created.

The lawyers energetically argue their case, robes swirling, questioning witnesses, submitting evidence. Sitting in the jury box, I decide to be the next door neighbour of the

recently murdered farmer. In role, I whisper bitterly to the juror beside me. "I phoned the police last night to complain about how loud the music was. Everyone was making such a ruckus—and you know what, they didn't even invite me to the party!"

For participants engaged in role dramas, an opportunity for debriefing and reflection is a critical and necessary component of the research / learning experience. Participants explain why they chose to do or say the things they did; they reveal the motivations and hidden agendas that influenced their choices of action; and together, they reflect on the imaginary world they co-created.

By sharing their experiences, they learn from each other the impact and consequences of their actions and responses. Participants may speak of connections between previous or current lived experience and those experiences or situations which evolved during the role drama. And, if the researcher is lucky, participants, individually or collectively, may speak to an “aha! moment”: a moment of recognition which startles, interrupts, or enlightens—a crack through which light spills.

Such moments of understanding²² give rise to new recognitions of how choices of action and ways of engaging impact on our shared environment and relationships. Such moments may lead to significant shifts in perception, empathy, action, and understanding. For the educator or researcher, it is recognitions such as these that are the desired “performance outcomes” of role dramas. As sites of exploration, roles dramas create opportunities for embodied learning which may, in turn, inform the participants’ and teacher / researcher’s understanding of the complexity and complicity of relationships, responsibilities, decision-making, and as-yet unnamed pedagogical desires or fears.

As a character witness speaks of the deceased man’s dedicated marriage, I lean over to disclaim this evidence snidely to the juror beside me. The judge bangs his gavel. “No talking or whispering in the courtroom!” He admonishes, pointing a finger directly at me. “Rule number 1.” Silenced, I sit subdued. My enthusiasm to stay engaged, and in role, diminished. The jury member behind me is becoming restless. He leans over to make a comment about the defense lawyer’s argument. Again the gravel demands silence.

In our Texan courtroom, the judge is quick to lay down the rules of behaviour, a management strategy well-known by classroom teachers. The group who designed this role drama clearly indicate through the judge’s set of rules how they expect participants to engage. Control is clearly in the hands of

the judge. The student teacher in role as the judge desires participation, but a participation that he directs and controls.

The defense lawyer brandishes a plastic bag in which collected evidence connects the youngest son to the crime site. The judge declares the evidence inadmissible, the argument invalid. Deflated, the lawyer returns to his desk, muttering wretched remarks about the judge to his partner. "Next witness to the stand," orders the judge.

The location of the judge's desk, the rules of a courtroom, the ritual dance and language of the defending and prosecuting lawyers as they present their evidence are recognized by those of us who are familiar with courtroom behaviour as seen on television, in movies, or perhaps as experienced in a courtroom or read about in novels. As participants we understand the behaviour required: the list of rules seems redundant, and counter to its original intent, a draft of discontent enters the courtroom. Within the confines of a role drama courtroom, it is difficult for a jury to remain silent. And so we resort to whispering. We whisper to comment on the evidence. We provide imaginative asides that further develop our roles in relationship to the various members of the farmer's family and the unfolding narrative.

But alas, as I and my fellow jurors attempt to engage, the judge's incessant demands that we be quiet, and his rejection of the pro-offered evidence by the defense lawyers, has the effect of dampening the lived experience of the role drama. Without the ability to engage meaningfully, we become restless. Shaped by the responses and directives of the judge, we respond in increased measures of defiance. Having established his rules, this particular judge seems unable to assess the situation that he is co-creating with the participants in this Texan courtroom. Caught in his own unfolding of the script, he does not pause to listen to the curriculum emerging beneath his banging gavel.

I catch a movement out of the corner of my eye. Turning my head toward the defendant's box, I find myself caught in the smirking gaze of the defendant. He winks at me! How inappropriate, I sniff. (Although, in role as a fifty-five year old spinster, I am secretly flattered by this unexpected attention). I frown at him, cross my legs, but still, the winks continue. Is it a nervous tic? Is he making a play at me?

I call over the court guard and ask her to deliver a note of complaint I've just penned to the judge. She hands the judge my note and whispers in his ear, but the judge takes no action. He is too busy denying yet another piece of evidence submitted by the defense team. "I can't believe the judge is ignoring my complaint," I complain to my neighbour on the left.

"Jury member!" bellows the judge. "You've already been warned. Five minutes in the time-out chair!" Embarassed by the public tongue lashing, (both within and

out of role), like a disciplined child, I am forced to sit shame-faced in a chair set aside from the jury box. An awkward moment.

"Really," I mouth to the jury at large, "this judge's behaviour is outrageous."

"You! Ten push-ups!!"

Exploration through role drama provides participants opportunities to come to individual and/or collective understanding about shared experiences, perceptions, and relationships. Taking on a role is often described as “stepping into someone else’s shoes,” but to do so, I would argue, is an impossible ambition. We respond to situations through the lens of our own experience, limited knowledge of others’ lived experience, and our imaginations—an unsettled exploration. And yet, through performance, there exists the possibility of emergent recognitions and resonances: a hinge, a gap, a momentary glimpse that invites us to reconsider, which offers a new perspective, or encourages a new way of engagement and response, in the unfolding of our own lives in interaction with others.

... the role of imagination is not to resolve, not to point the way, not to improve. It is to awaken, to disclose the ordinarily unseen, unheard, and unexpected.

– Greene, 1995: 28

Through reflective embodied engagement, we come to understand how we interact between the lines, within the gaps, slipping through cracks to reveal new possible worlds of interplay. Co-creative worlds of performance become pedagogical spaces of investigation: in role, any multitude of “new possible worlds” arise from a single step taken in “laying down a path in walking.”²³ What is of interest to the performative researcher is *What matters? What if? What happened? So What?* and, as my ten year old son once quipped in response to the first four questions, “Who cares?”²⁴

Role drama creates an accountmatic text—a living embodied text that listens; that invites conversation, that remains open for the entry of others; that acknowledges gaps, holes, absences; that invites participants to co-create new possible worlds within and between the lines and spaces of embodied text. For those of us engaged in teacher education, these messy, generative spaces become possible locations for investigating what it means to “become a teacher.” In all this messiness, the need to pause for reflection, to revisit together the sites of discomfort, surprise, elation, and decision is a critical step in the journey towards understanding the learning that unfolds on the “edge of chaos.”

Teacher Education: A Glimpse of the Impossible

*Not walls of cement ...
But the melodies of
(y)our temperature*

– Barba, 1995: 162

The conventional tools of lesson plans, units, management control techniques fail to acknowledge the complexities and experience of teacher education. Teacher education fails to illustrate the messiness that is teaching. It is only by entering a classroom that one begins to understand what it means to be dancing “on the edge of chaos.”

As Davis, Sumara, and Luce-Kapler (2000) illustrate, a classroom and its emergent curriculum is a complex emergent system of interactions and interrelationships brought forth by teacher and students together within a context and environment. Our students, their lived experiences, desires, and ambitions, their participation, their very presence and / or absence shape and reshape pedagogical experience; it is our adherence to an emergent learning located in the interstices of performance and complexity that invite cracks in the curricular walls of cement.

Halfway through my push-ups, there is a crashing from the upstairs loft²⁵, and the dead farmer, miraculously resurrected, staggers down the stairs, wrapped in toilet paper (bandages) and rope (chains). A horrible spectre risen from the dead, I am reminded of Hamlet's father, as he points a damning finger towards... The court erupts in agitated response, voices shouting, questioning, accusing.

In response to the commotion, the judge orders all jury members to do fifteen push-ups each. Two refuse and are escorted out of the room in disgrace. The dead Texan, with a heart-rending groan, breaks into a country song, the lyrics designed to expose the true murderer.

But his howls are drowned out by the banging gravel. The judge struggles to assert his authority. And I, simultaneously in role as the town gossip and as their classroom professor, am overcome by laughter—this Texan courtroom is at once impossible and yet, in a bizarre way, as the script evaporates, has come to life. The group leading the role drama glower at me for disrupting their curricular endeavors, but, I, alas, fail them miserably. “Silence in the court! Silence in the court!”

To pause and listen to the melodies of a curricular journey is to recognize that learning co-evolves through the nurturing, devotion, support, and interplay of all engaged in the practice of education. Becoming a teacher is a curricular adventure, a generative framework of possibility that invites stops,

interruptions, hesitations, elated moments of recognition, loss, and recovery; a unique journey shared by educator and students across an emerging landscape that unfolds with each footstep.

...

*And when turning around
you see the road you'll never stop on again.
Wanderer, path there is none,
only tracks on ocean foam.²⁶*

Varela's translation of poet Antonio Machado's poem invites us to think again about the task of teacher education. Becoming a teacher is a journey of pedagogical adherence and shared curricular exploration in as-yet unexplored terrain. Yet, we send our student teachers off to schools with folders of unit plans in their briefcases, arrange three-way conferences with their sponsor teachers to discuss what these new teachers are doing right, where they have made errors of judgment, what failed in their lesson plan, how to better to control the class. As if, perfection (and control) lies within our grasp.

How do we impress upon our education students that their desire to create curricular journeys of perfection is impossible? How is it that our Texan judge believes that by simply listing his rules, order will prevail? The student teachers who designed the framework of the role drama focused on the need to establish immediate control by having the judge read out a formidable list of rules. Did they not realize that the experience of being within the imagined space of a courtroom would grant their judge ultimate authority? Authority may be created by the physical space of interaction—the judge's desk and gavel, the jury's row off chairs, the swirl of the defense lawyers elegant robes—and by the roles we play in relationship within that location.

But, defiance is aroused by an authority that oversteps, that imposes, that fails to recognize the presence of the other within an unfolding relationship. What has our teacher education scripts taught this particular judge, who wears "la doublure"—as a student teacher leading the role drama and as a judge participating within it—about listening on the "edge of chaos?" Will he, in role as a judge, recognize that by his draconian imposing of order in the courtroom, a counterpoint resistance brews in the front row of the jury? How might he respond to the restless jury? Will his demand for more push-ups successfully silence the defiant jurors? How might he reclaim legitimate authority of this turbulent space?

This judge has multiple choices of action. He might, for example, try welcoming the jurors to engage proactively in the court's proceedings, he might choose to accept, not reject the lawyer's arguments, giving the jurors an opportunity to critically engage by judging the evidence themselves. By responding to the jurors' concerns, would he find a new voice of his own with which to engage all participants in the trial's proceedings? What will this judge learn from his afternoon in the Texan courtroom? What learning will this student teacher carry forward into his teaching career?

There are other people of authority in role in this particular courtroom. The courtroom guard might suggest that the judge announce a break in the proceedings. A quick conference among the students who have designed the role drama could advise the student playing the judge to alter his tempestuous behaviour. They could release the jury from their current roles, and reassign the participants as reporters writing the front page headlines and story of the trial for the next day's newspaper. These possible actions were discussed later by the students when we reflected on the role drama and the decisions that were made in role and as participants in the role drama. But in the heat of the moment, the performative narrative, now unfolding in the "here and now" of this rapidly overheating courtroom, carries its own momentum.

It is through our so-called imperfections that learning happens; an accountmatic text requires the novice teacher to disclaim the position of expert, and instead share in the embodied experiences of learning with students. How might we, as teacher educators, illuminate the bringing forth of new possible curricular worlds of engagement; a challenge when so many of us are caught in the conventional paradigm of teacher education praxis, language, and expectation?

The judge pounds his gravel. "Enough with the push-ups," he growls, and motions impatiently at the jury. "Back to the jury box!" We hurry to reclaim our seats. Two chairs remain vacant. The judge belatedly remembers the two rebellious jury members he had banished from the room twenty minutes earlier. "Guard, tell those jurors to return to the courtroom."

The guard goes to the door of the classroom, gestures emphatically, and the two chastened jurors enter the courtroom, bearing coffee cups and donuts. We watch them cross the room. And then, a collective gasp sweeps the room as everyone, including the two hapless jurors, collectively remember Rule Number 3. No Food or Drinks in the Courtroom. Heads swivel towards the judge to gauge his response; and then, as if in one choreographed movement, eyes turn in my direction. Startled, I am jolted back into my role as professor.

The fourth wall collapses, as the Texan courtroom we have created together and the university classroom world with its own rules and expectations converge in this moment. Our intersecting and overlapping embodied co-evolving worlds collide, in which the two students in role as jurors simultaneously transgress the rules of our Texan courtroom and those of the university classroom.

How should I respond?

It is in this moment that I experience what David Applebaum calls “the stop,” a moment of risk, a moment of opportunity.

*... the betweenness is a hinge that belongs
to neither one nor the other.
It is neither poised nor unpoised,
Yet moves both ways ...
It is the stop.²⁷*

This moment, swinging on a hinge between the courtroom and the classroom: here then is a way to engage student teachers in the ambiguity and unknowingness that is pedagogy. It is a stop that catches my breath, and holds me momentarily paralyzed, a moment of opportunity and risk through which we may come to understand that our ethical positioning and choice of action matters. A cracking of authority that reminds us that rules govern action, they language our ways of being in the world, and how we are shaped by and reshape that world. And here is a moment of learning: Actions that disrupt or interrupt the expected may yet be moments of release, harbingers of pedagogical freedom, opportunities to engage anew.

*Liberating education consists in acts of cognition, not transferals of information....
Liberation is a praxis: the action and reflection of men and women upon their world in order to transform it.*

– Freire, 1970/95: 60

It is through our so-called imperfections that learning happens; an accountmatic text requires the novice teacher to disclaim the position of expert, and instead encourages shared embodied experiences of learning with students, to welcome students to participate proactively, to co-create the curriculum in partnership with the teacher. How do we, as teacher educators, illuminate the bringing forth of new possible curricular worlds of engagement; a challenge when so many of us are caught in the conventional paradigm of teacher education praxis, language, and expectation?

The members of the class/courtroom awaits our response. Will the judge sentence the jurors for contempt of court? Will I scold the students for leaving the building? The judge and I exchange worried glances. How to reclaim authority?

And it is within this moment of stop, under the gaze of my students, that I come to recognize the possibility of role drama as a way to return teacher education to its original difficulty.

We speak often to the difficulty of educating the educators; yet how do we, as teacher educators, interrupt, startle, reimagine the classroom habits, engagements, expectations and practices of the “already known” curriculum? How might we help student teachers to understand and embody within their practice so that the complexity of relationships between student and teacher, curriculum and learning, environment and experience are not ignored in the routine of habit and teacher-centred authority, but are fraught with tension, unknowns, balances lost, regained and renewed? How might we illustrate that teaching is a practice of improvisation within pedagogical frameworks that invite meaningful and collaborative work, as we simultaneously shape and are being shaped by those with whom we learn and we teach?

What might happen if we offer our student teachers the opportunity to explore the metonymic spaces of role drama within which to learn their profession?

Learning through role drama, student teachers may come to recognize the value of student participation and leadership, as well as the value of “letting go” of the curriculum-as-plan²⁸ to allow an emergent curriculum to unfold in shared partnership. The pedagogical environment that students teachers may experience through role drama and upon collective reflection effectively model that teaching is a collaborative encounter that requires improvisation, reflection, and “thinking and responding on one’s feet to the unexpected unfolding of the curriculum in concert with students’ active participation. By *bringing forth new possible worlds* with their students through role drama, student teachers may yet learn to locate the gaps, absences, and moments of possibility that emerge within performative spaces which, in turn, will guide them to better understanding of this project we call education. The judge’s gavel will learn to temper its sounding out.²⁹

My laughter, an interruption of the Texan courtroom—as the restless jury fulfilled my expectations of a perfect lesson plan waiting to be sabotaged, and the incident of the two jurors caught bearing food and drink, transgressing simultaneously the rules of the courtroom and those of the classroom—called me to pay attention. When debriefing the role drama, I questioned my students about the possibility of using role drama as a way of helping student teachers come to understand teaching. I asked them to consider their experience in light of teacher education.

As a beginning teacher, what did you learn as a participant in this role drama? What did you learn about classroom management, about the importance of engaging all students in a curricular activity, about the need for students to have their contributions welcomed and acknowledged? Why did the jury misbehave? What happens when you fail to give participants meaningful work? Is there a connection between meaningful work and engagement? How did you feel when your contributions are ignored or dismissed by the judge?

What does the emergent world of role drama tell us about curriculum, teaching, and learning? How might we come to reimagine curriculum? What does it mean to respond within the moment? How might the judge and other role drama leaders have re-engaged the jury? What does a role drama script have in common with a lesson plan? What are the differences? How might the role drama be redesigned? Who owned the curricular experience?

Does our experience bring us closer together as a learning community? What happens when a teacher falls out of role? What did you learn in terms of your responses, actions, and motivations? What happens in the moment when the teacher and students come to a stop; when an emergent curriculum hesitates mid-breath—

What emerged through our discussion, was a renewed and invigorated understanding of teacher education, and our participation in its unfolding.

The moment of the stop—perceived failings, hesitations, stumbling, transgressions, and startled recognitions—are signposts to new ways of engaging in our world(s) of embodied experience. “Authentic authority is not affirmed as much by a mere *transfer* of power” Paulo Freire suggests, “but through delegation or in sympathetic *adherence*.³⁰ Authority of education lies through a shared *bringing forth of new possible worlds*.

It is in the cracks that open as we engage in pedagogical journeys that reveal a luminosity of interstanding. Performance, through role drama or other performative explorations, opens up the practice of teacher education to one of collaborative engagement, and communal reflection of what learning is possible in the bringing forth together of new possible pedagogical worlds.

Perhaps our quest as teacher educators should not be one of seeking “... a method for clarifying or solving questions...but...a ‘restoring of life to its original difficulty.’³¹ This time, in role as a restless jury member, with one foot in an overheated Texan courtroom, and the other simultaneously in a classroom—in role as a teacher educator, in role as a middle-aged gossip—I witnessed chaos erupt from what was, on paper, a perfect lesson plan. Caught on the pedagogical edge of chaos, I had a glimpse of the impossible.

Endnotes

1. The courtroom role drama was created by student teachers participating in a drama education course. It is with great appreciation to them that the insights that arose through my experience within the role drama and upon reflection have helped to clarify my understanding of challenges of engaging student teachers in meaningful ways within a teacher education program. Tarlington and Verriour's (1991) *Role drama* provides educators with an excellent resource for educators interested in the design, facilitation and pedagogical implications of role drama in classrooms. The intent of this paper is not to analyze this role drama as an example of how to use it in teacher education, but to illustrate how my current thinking about role drama as a viable strategy for teacher education was provoked by my participation in this role drama.
2. Philosopher, David Applebaum, in the articulation of the philosophical underpinning of his work, *The Stop*, uses the story of Oedipus who, exiled from the city, blinded and full of remorse, traverses the unknown terrain by aid of a walking stick. He becomes paralyzed in motion, when his stick strikes a rock, and he must choose what action to take. This "stop" is simultaneously a moment of risk, and a moment of opportunity.
3. From Leonard Cohen's (1993) poem, *Anthem*. 373.
4. Authority here means the legitimacy of educational action by the educator which through facilitation, leadership, and/or guidance brings students to new learning.
5. This story is related in M. Mitchell Waldrop's book, *Complexity: the emerging science at the edge of order and chaos*. Published by Mitchell. & Schuster New York: Simon in 1992.
6. The "butterfly effect" is commonly used as an analogy for Chaos Theory, yet is applicable in contributing to an understanding of complexity and the generative interrelationships and interactions which arise within minute moments of movement/engagement.
7. Creative critical interplay, in this context, refers to the interactions and relationships between participants both within and outside the role drama. I deliberately use the prefix *inter* to suggest the complexity of possibilities within and through actions between participants. These actions and responses hold within them a multiplicity of lived experience, relationships, ambitions, desires, fears, and patterns of engagement, which influence individual choices of action. I introduce role drama to new students within the context of play, to address the reluctance of some to engage in "drama." "You've done this before," I remind my students, "as a child, coming to learn through play, imagining that you are a princess or a ninja turtle; an astronaut or a truck driver, in the sandbox, in the kindergarten playhouse, when you, as a child, created imaginary worlds in play." I use the adverbs, "creative critical" to underline the interpretative lens that simultaneously dwells within creative action, so that interplay is understood to embody simultaneously both a creative and interpretative action/response.
8. The word "performance" here is understood as simultaneously both noun and verb, and is an action-space of creative critical interplay realized through imaginative response and action. In drama education, the words "process" and "product" are commonly used to discuss the different modes of drama activities. Given the etymological meaning of "performance," (as revealed later in the article) my intent is

to encourage readers to move beyond the limitations inherent within the terms of *drama education, process, and product* into a different paradigm. Performance, as I choose to interpret it, acknowledges multiplicities of engagement with performative structures and action, simultaneously, noun and verb; i.e. creative critical interplay through imaginative response and action that is emergent and interpretative.

9. See Fels, L. (1998). In the wind clothes dance on a line. *jct: Journal of Curriculum Theorizing*, 14 (1), 27-36. In this article, the conceptual intertwining of complexity theory, enactivism (Maturana & Varela, 1992; Varela et. al., 1993; and Brent Davis et. al., 1996) and performance (Fels & Stothers, 1996), leads to a conceptualization and articulation of performative inquiry as a research methodology.
10. Lee Stothers was then doing her doctoral studies in Asian Studies at the University of British Columbia with a focus on Japanese Noh theatre. I am indebted to her contributions in my conceptual work, as well as for introducing me to several key authors, cited elsewhere, who have informed my work.
11. See Fels, L. & Stothers, L. (1996). Academic Performance: Between Theory and Praxis. *Drama, culture, and education*. J. O'Toole & K. Donelan (eds.). Australia: IDEAS. 255–261. In this article, Lee and I conceptualize performance as an interactive space for learning. This work, which was presented in Australia at an international conference on drama education, led to my doctoral work of performative inquiry as a research methodology.
12. The concept of knowledge as “knowing is doing is being” within the conceptual framework of enactivism as explored by Davis, Sumara , & Kierans (1996) in an early and what was then unpublished paper. I included the word “creating” in the trilogy to embrace our imagining of the not-yet-real which is incorporated in our being, becoming. See my article (Fels, 1995) in which I go cross-country skiing with Madeline Grumet.
13. See Fels & Stothers (1996). See also Fels (1998).
14. Waldrop, 1992: 12.
15. As explained by Jacques Daignault during his presentation, January, 1996, “la doublure” refers to the underlining of a jacket. The lining allows a jacket to maintain its shape, eases the movement between jacket and the wearer, and, remains invisible to the viewer yet is felt by the wearer, thus being simultaneously absent yet present.
16. Taylor and Saarinen (1994). In their book, *Immogologies: media philosophy*, the authors introduce the concept “interstanding” explaining that “Understanding has become impossible because nothing stands under. Interstanding has become unavoidable because everything stands between.” Interstanding 2.
17. From an unpublished paper presented by Jacques Daignault at the UBC Narrative Inquiry Conference, May 1996 which I had translated by Caitlin Ivan.
18. Role dramas require that the educator or facilitator participate in the unfolding of the drama; there can be no teacher standing at the sidelines observing. Participation in a role drama invites teacher and students into a fluid interactive engagement, in which the teacher simultaneously guides and is guided during the process. My richest learning experiences have been when I have actively given responsibility for the design and leading of a role drama to my student teachers, and engaged as one of the participants.
19. In these post-modern times, it is impossible to refer to the “real world” without placing one’s tongue firmly in one’s cheek. The term, so-called “real world” is not a universal modernist conceptualization in this instance but speaks to the multiple

- experiences, interactions and absences within our perceived and lived world(s) of embodied experience.
20. The work of Dorothy Heathcote, Gavin Bolton, and David Bolton, Richard Courtney, among others speaks eloquently to the educational values and learning that drama education affords. I would like especially to acknowledge Patrick Verriour, who through his teaching and drama education workshops, introduced and promoted role drama throughout British Columbia. See Tarlington & Verriour, 1991.
 21. See Sumara & Davis, 1999, for discussion of complicity within the framework of complexity theory.
 22. Philosophers Taylor and Saarenin introduce the term interstanding to illustrate their positioning that learning is an inter-relational engagement between. "Understanding has become impossible because nothing stands under. Interstanding has become unavoidable because everything stands between." (Taylor & Saarinen, 1994: Interstanding 2).
 23. Varela, 1987: 63. A line from Proverbios y Cantares, a poem he translated written by Antonio Machado, [1930]. Varela and Maturana's concept of cognition as "...an ongoing bringing forth of a world through the process of living itself (Maturana & Varela, 1992: 11, my italics) and Varela's understanding of knowing as being "what we do is what we know, and ours is but one of many possible worlds. It is not a mirroring of the world, but the laying down of a world..." (1987: 62) are pivotal to understanding role drama as an emergent action-site of inquiry.
 24. I am indebted to Dr. Karen Meyer for her framing of scientific investigations into these four questions. It was during a research project that Karen did with my son's grade five class, that the fifth question emerged. See Fels & Meyer (1997).
 25. The delight of the classroom in which I teach drama education is that there is an enclosed loft accessible by stairs. It has been through these years of role drama, a hide-out for thieves, a den for bears, and a bomb shelter for families reading letters from the front during World War Two.
 26. Poem by Antonio Machado, from *proverbios y Cantares* (1930) as translated by F. Varela, 1987: 63a.
 27. Applebaum, 1995: 15, 16.
 28. Curriculum-as-plan and curriculum-as-lived is explored by curriculum theorist Ted Aoki whose work greatly informs my understanding of the "in between spaces." See Aoki, 2004.
 29. I use the courtroom role drama and my experiences within it, as an example of the learning that may be possible through role drama: and how it might serve as a site of exploration for student teachers learning about becoming educators. This particular role drama gave rise to reflections about authority in the classroom, authority in role, the importance of meaningful work, how successful engagement of students can facilitate classroom management and encourage learning. It is not meant to serve as a template nor an analogy of a classroom. Individual roles dramas will bring forward new learning and issues. What is key in this conversation is that role dramas offer a viable medium for teacher education.
 30. Friere, 1970/1995: 159.
 31. I am, here turning to David Jardine, who in turn quotes John Caputo (1987) who, as Jardine says, "goes as far as to 'define' phenomenological hermeneutics, not as a method for clarifying or solving questions regarding some feature of life, but as a 'restoring of life to its original difficulty.'" (Jardine, 1998: 11).

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