Engaging Science, Technology, and Society

THEMATIC COLLECTION: PEDAGOGICAL INTERSECTIONS ORIGINAL RESEARCH ARTICLE

Feminist Theory Theater: Acts of Reading as Embodied Pedagogy

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Abstract

This article introduces *Feminist Theory Theater* (*FTT*), an experimental reading practice developed by the co-authors. Described most simply, FTT asks a group of co-present readers to put a text "on its feet," improvising and revising its performance as a mode of ongoing, embodied interpretation. The aim is not to settle on a consensus of what a text means or to work toward a finished performance. Instead of staging a single best performance, FTT invites texts-as-scenes to be interpreted and re-staged by any member(s) of the reading group. We offer FTT as a way to take up York and Conley's (2019) proposal that the commitments of STS can and should be enacted in practices of pedagogy. Here, we present and analyze multiple scenes of FTT in action to consider the potentials and limitations of critical STS pedagogy. We include our earliest experiments developing FTT in Act I, reading Judith Butler with undergraduates in a university lecture hall in Act 2, and reading a syllabus with incarcerated students in a prison classroom in Act 3. We highlight the empirical ways that FTT resists interpretive closure, centering embodied reinterpretation, arguing that doing so re-embeds text in the world as a way for reading groups to *revision* both. However, this dynamic, non-teleological mode of reading causes trouble for lesson plans and "learning outcomes" that might support the institutional legitimacy of STS critical pedagogies. This contradiction hinges on the question of *who and what teaches*. We argue that this trouble is worth staying with as a practical contradiction to be grappled with in further research *on* and *through* STS critical pedagogies. We invite readers of this article to take up this question (and others) by trying with, reflecting on, and revising through the situated, open-ended mode of reading together that we call FTT. To that end, we present a free, printable zine, *The Feminist Theory Theater Workbook*, which can act as both a guide to a first attempt at doing FTT and an archivable trace of that reading.

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Introduction
Studies of science, technology and society (STS) have long been interested in *pedagogy* through descriptive accounts of embodied apprenticeship in sites of technoscientific production (Myers 2015; Alač 2011; Goodwin 1994; Lynch 1985), as well as through projects examining, facilitating, and advocating for undergraduate STEM students' engagement with the social and historical dimensions of science, technology, and medicine (e.g., Cipolla 2019; Giordano 2018). More recently, as Emily York and Shannon Conley (2019) have proposed, there has been a turn to STS itself as a critical pedagogy, inviting STS scholars to go beyond a distanced critique of how educational institutions shape the production and expression of knowledge. In line with a broader turn to "making and doing" in STS (Downey and Zuiderent-Jerak 2017; 2021), they also propose reflexively intervening in participatory frameworks in the classroom so that "colleagues and students are the interlocutors, and pedagogical interventions present mutual learning opportunities through which the politics of knowledge production are analyzed and challenged" (York and Conley 2019, 1). Approaching pedagogical encounters as experimental instead of sites of simple knowledge transmission presents an opportunity to consider how "our practices and sites of teaching might become the subjects of STS experimentation, intervention, engagement and research" (ibid., 2).

York and Conley's proposal for STS as critical pedagogy leans heavily on Paulo Freire's and bell hooks' formulations of critical pedagogy (in *Pedagogy of the Oppressed and Teaching to Transgress*, respectively). For both Freire and hooks, education is not merely a matter of the acquisition of culturally valuable knowledge but is simultaneously directed to participants' understanding of how to live (hooks 1994, 15). A non-critical pedagogy, therefore, overlooks the possibility that what students learn in class is not only the content of the lesson, but also *the relations they and their teacher must perform* for that lesson to exist. In this sense, internalizing the hierarchical relation of teacher-to-student *is the lesson*, training students to accept a broader network of social hierarchies presented as stable and given. Freire counters this approach with a pedagogy geared toward liberation, which entails noticing how such hierarchies are produced and maintained as a way to change them. "No reality transforms itself," (1970, 53) Freire writes, explaining that,

> No pedagogy which is truly liberating can remain distant from the oppressed by treating them as unfortunates and by presenting for their emulation models from among the oppressors. The oppressed must be their own example in the struggle for their redemption. (ibid.).

In Freire's vision of transformative pedagogy, the goal of education is not knowledge transfer but empowerment—a coming to consciousness about the conditions of oppression as a way to resist and remake them. This vision presents challenges and opportunities for educators to incorporate Freire's radical methods into the classroom. Feminist and constructivist pedagogy researchers have studied and intervened in learning practices in ways that reconfigure the teacher-student relationship and illuminate the functionings of power, often by attending to moment-by-moment improvisations and the mediations of tools, spaces, and lived experience (Barton 1997; Cavicchi 2014; Riley and Claris 2009; Philip and Gupta 2020). Could radical classroom interventions like these offer STS a way to explore different ways of

classroom knowing, while also presenting a way to know differently? Here, we consider this question through our interventions in reading together.

One of the primary practices that organizes what counts as a "course" is reading. Yet despite the foundational role of reading in formal classroom settings and informal reading groups (Klein 2022), reading as a practice has often been overlooked in the STS literature on knowledge expression and in discussions of feminist pedagogies.[1] Outside of feminist literatures, reading has often been posed as a problem ("how to get students to read?"), a matter of acquiring a basic skill ("literacy"), or as a practice of the individual mind over the inert body ("comprehension"). Dissatisfied with such instrumentalist approaches, in 2014, the co-authors of this article convened informally to consider *how we read* and, perhaps, to read differently. We were graduate students at that time, so the question of *reading as a way of coming to know* was familiar from teaching undergraduates and as students ourselves. We were struck by disjunctions between the radical propositions of feminist theory and how those very same feminist texts were read, discussed, and taught. Thus, for us, the concerns of feminist theory[2] activated our interest toward the political, performative and material aspects of reading. How could we *do* feminist theory when we convened to *read* feminist theory? We asked questions not only of particular texts but of the act of reading itself: What constitutes the text we are reading when feminist theories question the boundedness and linearity of a text? How do we read while embracing that our reading selves are constituted multiply, flexibly, and transiently? How can acts of reading challenge the assumed instrumentality, homogeneity, ahistoricity, and disembodiment of reading? And what do we learn and what can we teach by reading in this way?

During weekly meetings in the sparsely populated courtyard of the University of California, San Diego (UCSD) campus pub, we began experimenting with performing bits of the texts we were reading together, theoretical texts that were surely not written to be performed in this way. We improvised staging what we read. We decided that we would call this way of reading "Feminist Theory Theater" (FTT). The "feminist theory" was meant to evoke the questions above and to acknowledge our debt to the feminist texts that fought for the legibility of collective, situated meaning-making. The word "theater" marked our insight that reading feminist theory texts required *doing* them: theater gave shape to reading *as* feminist theory-in-practice. If this sounds confusing now, it was even more so to the authors then. Our weekly meetings unfolded as explorations. We read feminist theory together by performing it, and we propelled our reading by challenging ourselves, again and again, "How could we stage this concept? This sentence? This title? This word?" In this way we read texts by Judith Butler (1988), Simone de Beauvoir (1974), Kathleen Stewart (2007), Susan Leigh Star (1990), and Donna Haraway (1988).

[1] Discussions around knowledge expression tend to focus on the role of texts or databases (e.g., Bowker 2014; and Downey and Zuiderent-Jerak 2021). While literature on feminist pedagogies do not generally consider the process of reading, one exception is Liboiron's chapter "Exchanging" (2020) that reflexively intervenes in extractive reading practices.

[2] Here, we consider feminist theory to precede and include feminist STS approaches. For a more extensive discussion of the methods and commitments of feminist STS in respect to broader STS approaches, see Gluzman (2021).

When we read Haraway's (ibid., 589) sentence, "Feminism loves another science: the sciences and politics of interpretation, translation, stuttering and the partly understood," we asked each other: How might we use our bodies and surroundings to actually *stage* or *perform* "another science"? Instead of stopping at the question, "What did Haraway *mean* by 'another science'?" we pursued its meanings by trying to materialize "another science," making meanings not only sensible to each other but also revisable by us all. By staging and restaging the phrase, we rooted our collective interpretive process in our lived environment, thinking "another science" in relationship to the objects, sensibilities, bodies and interactions through which it was performed and re-performed. Working deliberately with material, situated aspects of depicting "another science" in performance revealed the personal, political and performative dimensions of what "another science" might mean to us.

Later, when we did FTT with students, reading together in this way invited us to substantively reconsider what it means to engage each other as teachers and learners. This turned out to be an STS question, querying not only the content being taught or even the style of teaching, but also inviting us to play with the STS move to critical pedagogy through attention to what teaches. Rather than defaulting to the model of teacher as a disembodied expert disseminating knowledge—the "sage on the stage" (York and Conley 2019, 4)—doing FTT invited us to enter the page through the stage, to center the multiplicity of bodies, spaces, life experiences, props and propositions in the dynamic doing of reading.

While working through theater and performance methods is still a relatively underexplored framework for STS research and pedagogy,[3] our argument is not predicated on understanding FTT as an innovative or even new method. On the contrary, the FTT process we landed on through experimentation is very similar to theater practices that have long been taken up in contexts of education and empowerment. Thus, FTT can be understood not only in respect to Freire's *Pedagogy of the Oppressed* (1970) and hooks' *Teaching to Transgress* (1994), but also in relation to Augusto Boal's *Theatre of the Oppressed* (2008). Influenced by Freire, Boal argues against classical theater models that require a passive spectator waiting to see themself reflected in the on-stage drama, which they could neither challenge nor change. Instead, Boal's theatre of the oppressed abolishes the passive spectator, so that ". . . the spectator delegates no power to the character (or actor) either to act or to think in his place; on the contrary, he himself assumes the protagon[ist] role, changes the dramatic action, tries out solutions, discusses plans for change—in short, trains himself for real action" (Boal 2008, 98). Boal's methods and FTT are not identical[4]; while Boal's

[3] While STS interest in artistic methods increases, theater and performance approaches are generally under-engaged. For example, theater approaches were explicitly foregrounded in only three of 42 chapters in the recent *Routledge Handbook of Art, Science and Technology Studies* (Rogers et al 2021). Important exceptions in STS include the ongoing work of Natasha Myers and Joe Dumit (2011), Megan Halpern (2014), Kat Jungnickel (2020, 2023), Caro Novella (2017, 2021), and Elena Sophia Pérez, Efstathiou, and Tsjalling Swierstra (2019).
[4] Of Boal's influential exercises, FTT is most similar to Boal's "image theatre" and "forum theatre" (Boal 2008, 112–119). In these forms, participants stage either a *tableaux vivant* or enact a scene which other participants are asked to interpret, discuss, and revise. As in FTT, the point is not to settle on a correct staging, but to materialize, analyze and reconfigure possibilities for real action in everyday life. While in Boal's practice, real world conflicts

practice conceives of performances as "rehearsal[s] for revolution" (ibid., 119), FTT insists, more humbly, on rehearsal as a consequential process that requires negotiation, accountability, and "standing with" collectively materialized interpretations of a shared text.

In this article, we offer a description and analysis of Feminist Theory Theater with two aims. Our first aim is to give an account of how we have gone about reading with FTT. Just as feminist theory begged the question of feminist methods, the practice of *theater* within Feminist Theory Theater invites readers to engage with FTT by doing it. Our own scenes of doing FTT are presented in detail to give contours and confidence for those who want to try it. To facilitate this, we present three "acts"—multiple scenes of FTT in action—from our earliest experiments (Act 1) to reading with undergraduates in university classrooms (Act 2) and incarcerated students in prison classrooms (Act 3). This extensive use of the empirical is not meant to preclude theoretical engagement, but rather to explore the material, social and bodily conditions that, for us and our reading partners, brought theory into practice. For those who may want more scaffolding before trying out *FTT* with their own reading group, we have also created the *Feminist Theory Theater Workbook* (Aushana et al 2022) as a companion guide to accompany this article. This downloadable, printable zine is meant to guide first-timers in using FTT to read a text of their choice. As further described in this article's conclusion, we invite readers to document, reflect on, and share their FTT reading process by submitting marked-up workbooks to a growing online archive called the *Feminist Theory Theater Reading Room*.

Our second aim is to explore York and Conley's (2019) proposal for STS as critical pedagogy. We do this by considering examples of what was learned while doing FTT with undergraduates in a university lecture hall and with incarcerated people in a prison education program. We identify relations between educators, texts, and students already inscribed in the procedures and architectures of these sites. Further, we analyze scenes of doing FTT to consider how these relations were made visible and *actionable* through our open-ended performance methods, foregrounding student voices when possible. Finally, we reflect on the limitations of FTT and STS as critical pedagogy and propose questions for future experimentation.

Act 1: Resisting Interpretive Closure

At our earliest meetings, the co-authors and a few collaborators[5] would assemble around a particular text, point out an interesting section, and try to stage it. It was not a straightforward process. Each staging brought our attention back to the text to read it anew. New insights begged to be included in what was suddenly an inadequate staging. Back and forth, back and forth, but never to the same place. We had not read this way before, and doing so through FTT was, we agreed, the best part of our week.

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and relations are the basis for the scenes staged and the target for revision, in FTT we take the text being read as the basis for provisional stagings, reflection, and reconfiguration.

[5] These early meetings included participation from Julie Burelle (UC San Diego) and Angela Washko (Carnegie Mellon University). Later collaborators included Yecid Calderón Rodelo (Universidad Nacional Autónoma de México) and Tara Pixley (Loyola Marymount University).

Bearing a name and a set of starting premises, word got out about "this thing" we were doing. We were invited to share FTT with members of the UCSD Communication Department at CommPlayground, a monthly event organized by Professor Fernando Domínguez Rubio around playful or experimental scholarship. Faced with the task of sharing FTT, we cobbled together a script, a mash-up of passages from texts we had been reading. We decided to present this as a performance and follow it with a workshop. We booked a campus rehearsal space and began to create props, costumes, and objects. As we engaged these materials, spaces, and our bodies, different kinds of questions emerged. What would it mean if, instead of reading this bit of text aloud, we unraveled it on a strip of fabric that the audience could read like a scrolling caption? What if, during the sing-song story time *recitative* of de Beauvoir's "One is not born, but rather becomes, a woman..." (1974, 301), everyone had a beard? (Sarah Klein knitted some for those of us who would not grow our own). Yecid Calderón Rodelo, a visiting performance studies scholar, activist, and Colombian drag performer, joined us in our later rehearsals with/as his alter ego Pinina Flandes. The performance we brought to CommPlayground saw our source texts enacted through live video, storytelling, circus act, puppetry, poetry, and drag. Yet, somehow, the energy of the performance was not nearly as charged as what we had experienced in our weekly meetings; the audience was inert, and we felt present neither to the performance nor to the texts we cared for.

Following the performance, we invited the audience of faculty and graduate students to participate in the workshop. We explained how we had been reading as FTT: staging and restaging words, concepts, and sentences, always returning to the text for push-back. We gave each group a short passage from our source text and asked them to try it. They stumbled toward staging, as we had in the previous weeks, and at the end, shared their stagings and their impressions of the process.

After the event, we met to discuss why the performance felt inert, but the workshop afterwards felt full. We realized that *Feminist Theory Theater* had little to do with a product presented as theater; FTT was not a way to stage plays for an audience but rather a way to read together by iteratively staging texts *for and with each other*. What had felt wrong was the creation of a play-to-be-performed, a finished piece made possible by the interpretive closure of a particular reading. Instead, we realized, the most valuable thing about FTT was that it resisted interpretive closure.

In FTT, stagings of texts were meant to be done, undone, and redone, because this process materialized interpretation as actionable, perspectival, and dynamic. This was what we had joyfully done while assembling our performance but had undermined by performing it as though it were finished. To resist closure, we made a few new commitments: Any future FTT event would not present a complete, pre-made performance. It would not draw a boundary between audience and performers. It would be a workshop, a gathering where participants could read through staging. The process would not be oriented toward the goal of finishing a complete performance, or even settling on one correct staging. Instead, reading through FTT would be done by tuning in to what it feels like to put texts *on their feet* and allowing these feelings to inform our interpretations of the text. Reading together through these material enactments—foregrounding contingency, reflection, and revision—was what we would continue to practice as FTT.

As FTT grew into a practice of staging for and with one another rather than presenting a finished performance, it resisted interpretive closure of texts. In resisting interpretive closure, we argue that FTT enacts a version of STS critical pedagogy. Actively resisting interpretive closure helped us to materialize the

insights of situated knowledge (Haraway 1988) within and against the seemingly disembodied and blackboxed "technologies" of texts and classrooms. Of course, interpretive flexibility alone does not necessarily entail a critical awareness of the politics and contingencies of meaning-making. As shown in a classic STS example by Kline and Pinch (1996), twentieth-century automobile engines or bicycles sustained a variety of interpretations across relevant social groups and contexts, but this interpretive flexibility did not necessarily challenge users' understanding of technologies as epistemic objects. In taking up FTT to read together, we activate interpretive flexibility not as a descriptive concept but as a methodological principle. That is, we explore how actively doing interpretive flexibility with texts and learning spaces can invite (though not guarantee) a critical awareness of the processes of learning and knowing. By staging texts (a way of reading not prescribed by the text's authors), FTT made the situatedness, embodiment and contingency of interpretation something to be continuously confronted. In Act 2, we show these confrontations in action through our experiments with FTT in an undergraduate classroom.

Act 2: Provisional Materializations / Four Scenes of FTT

Act 2 opens to find the authors clustered around the front table of a large university lecture hall, recognizable by its deeply-raked auditorium of fixed single seats facing the recessed table, podium, and blackboard. A sentence from Judith Butler's essay "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory" is projected on the lecture hall screen (1988). We had dismantled the table-top podium and now the teacher's table was overflowing with stuff: pink high-heeled shoes, knit beards, an eclectic hat collection, rope, whistles, masks, a silky nightdress, and a basket of fabric snowballs. In the theater, such objects are "props," short for "properties," and often assembled on a "prop table" for performers to access. In our case—as we looked up at the 80 or so assembled undergraduate students—these props were propositions: open invitations to ground, animate, provoke, and experiment with Butler's own propositions regarding sex and gender.

We had been invited by Professor Joe Hankins to his "Introduction to Sociocultural Anthropology" course to read the class's assigned text with them and thereby introduce the class to FTT. Doing FTT with so many undergraduates at once was a challenge. As we planned our visit, we considered how we could make the prospect of performing less intimidating. And, even more difficult, how would we displace associations between theater and complete performances to foreground the provisionality of staging? We decided we would begin by doing a "demo," offering ourselves as performers and casting the students as directors. We would enact the provisionality of staging the text by inviting students to revise the scene they had directed us to perform. Finally, students were to be split into smaller groups and asked to read other passages of Butler's essay by staging it themselves. This, we decided, would be one way to enact learning-in-movement with students, and we would also become learners as they directed our bodies to perform their interpretations of the text.

In the rest of this section, we describe several moments from the demo and the subsequent workshop, each of which is a particular configuration—or staging—of people, texts, and materials in the mise-en-scène of the university lecture hall. Each moment also crystallizes a more generalizable tactic through which FTT puts a text on its feet and keeps it on its toes. Across the following scenes, reading emerges as a provisional and ongoing process of returning to the text. Here, reading means asking how a

text looks, feels, and moves: What does this staging do to the text? Where does it take us? How does it feel to move, be moved by, and "stand with" this staging? How does it unsettle the spaces and roles of learning, and how might that provide, as York and Conley suggested, "mutual learning opportunities through which the politics of knowledge production are analyzed and challenged" (2019)?

Scene 1. Materializing "Real Woman" and "Authority"

After introducing ourselves, we offered a simple directive: "We'd like for you guys[6] to stage this sentence, and we will be your performers. You guys are the director—the collective director—and we are going to perform this."[7] There was silence as we waited for direction from the students. Waiting, too, were the props splayed on the table, and Butler's sentence projected behind us on the screen:

> Consider that there is a sedimentation of gender norms that produces the peculiar phenomenon of a natural sex, or a real woman, or any number of prevalent and compelling social fictions, and that this is a sedimentation that over time has produced a set of corporeal styles which, in reified form, appear as the natural configuration of bodies into sexes which exist in a binary relation to one another. (Butler 1988, 524).

One student, whom we will call Anna,[8] raised her hand and offered a first suggestion for how to stage the sentence:

> ANNA. I would say that well, pink, and so pink high heels, pink dresses—that those would be some phenomena of what a woman would wear, or be dressed in.
>
> YELENA. Okay, so you want to use these two for "real woman?" (*Gets pink high-heeled shoes, sets them on the floor to the left of the props table, returns to get the pink nightdress and begins to put it on.*)
>
> ANNA. Yeah and if you were to put that against something masculine, the men's jacket and ooh (*points*) the construction hat.

For nearly each direction we received from the student-directors, we asked for clarification and confirmation. Rather than putting the hats on ourselves, thus making a casting decision for them, we asked questions: "Who is wearing this? Is it going on a person?" Anna responded and, with a tongue-and-cheek tone, insisted the hat must go on the man, "The *man* has to wear it, right?"

[6] The irony that we slipped into the typically male-gendered "guys" while reading Judith Butler's meditation on the way gender norms are embedded in and iterated by everyday speech acts is not lost on us.
[7] All descriptions of classroom scenes in Act 2 were transcribed using a video recording of the event, filmed by photographer and videographer Collin C. Chappelle. Using consent forms that we distributed in class, students were individually asked for their permission to be recorded and could grant or refuse their consent for a list of various uses of these recordings.
[8] All student names in the paper are pseudonyms.

Directed by students, we cobbled together a scene based on gender stereotypes, eventually staging a catcall scene where a construction worker cajoles a female passerby. As the only visibly male member of FTT, Michael Berman was directed by another male student-director to stand on a chair at the front of the room. This interaction, transcribed below is pictured in figure 1:

> BRENT. Michael, you have to look authoritative.
> MICHAEL. I have to look authoritative. Do I do that just by standing here?
> BRENT. You could stand on the chair. (*Class laughs.*)
> MICHAEL, *stands on chair behind props table*. So, height is increasing my authority here? It doesn't make me look insane?

In trying to remain restrained as actors, the excess meanings adhering to our bodies, like the meanings adhering to the pink high-heeled shoes, were made explicit. It is not our assertion that these meanings are fixed and unavoidable no matter how neutral we try to be. Rather, we point out that our directors' tacit assumptions—about who should play the role of "the man," or what authority looks like—can be reflected back to them as dramaturgy: actionable choices to materialize one meaningful thing over another. The fact that all choices are steeped in contingency and excess,[9] however, means students' intended meanings move when they materialize as situated, dramatic events. Let us look back at Michael, standing on the chair of authority for an example of how meanings become unmoored when they are enacted by bodies, objects, and worldly forces.

The chair that Michael stood upon was made of flimsy plastic and metal. As he balanced on the chair while struggling into a slightly-too-small brown corduroy jacket with assistance from Sarah, the whole room gasped as the chair briefly wobbled backwards, then quickly righted itself with Sarah's help. "How's *that* for authority?" Michael joked. Sarah responded, "It's toppling, possibly." Indeed, the chair, which had been called upon to express authority, in that moment expressed instead the tenuousness and instability of authority. This moment called into question whether standing on the chair had ever been an adequate expression of authority at all; and if it hadn't, what would be? In a theater performance or lecture, this would be an embarrassment; in FTT, it became an opening for grounded reinterpretation.

[9] See Gluzman (2017b) for a discussion of contingency and excess as conditions for knowing through theater.

Figure 1. Michael asks, "So, height is increasing my authority here?" (Video stills courtesy of Collin C. Chappelle.)

As performers, we could not plan for how objects, bodies, and spaces would refract and interact with Butler's sentence; we encountered these unruly materials only as we carried out the directions given to us. When Michael was later instructed to wear the high-heeled shoes, his struggle to do so not only reinforced aspects of the gender binary (who should wear high heels) but further made palpable the "corporeality" of Butler's "corporeal styles" (Butler 1988, 524). As with the wobbly chair, these emergent interactions inflected or reflected different facets of the text; they grounded our reading in an inhabited world.

Scene 2: Layering Lived Experience in Staging a Catcall

Michael, standing on the recently stabilized chair, had just balanced a cowboy hat on top of the white safety helmet on his head. Yelena Gluzman, wearing the floral slip dress and pink heels, stood on the floor to his left. What followed was a series of staging suggestions first framed in terms of conditionals and generalities. Suggestions for revision became more specific when women in the class began affirming each other's personal experiences of catcalling. A student introduced the premise of the catcall scene by riffing on the helmet:

> CALLIE. If he's a construction worker, and, you know, you're the woman, if he says something to you like many construction workers tend to do, and you can't respond with the displeasure that you're actually feeling, you have to just kind of smile and appreciate it otherwise it could get worse.
>
> YELENA. OK. So what should he say?
>
> CALLIE, *quietly, mumbling under her breath*—something awful. (*Quiet laughter among students.*)

The first specific suggestion was for Michael to say, "stay in the kitchen." Michael tried it exactly as phrased, as a command: "stay in the kitchen." Yelena raised her shoulders, smiled, and cocked her head to one side in a diminutive gesture. This line suggestion misfired, which is to say, it was taken up by neither the performers nor the directors to build upon further. Christina Aushana called on another student, Donna, who made a suggestion referencing her first-person experience: "One thing I hear a lot in the street is 'why don't you smile?'" Donna's suggestion was affirmed, tried, and revised in a back and forth between the two students and the performers, and Yelena tried to clarify how she should act in response.

> DONNA. One thing that I hear a lot in the street is why don't you smile (*inaudible*), smile
>
> CALLIE, *emphatically agreeing*—Oh my god!
>
> YELENA. Yeah, ok, I get that
>
> MICHAEL, *to Yelena.* Why don't you smile? Why don't you smile?
>
> YELENA. And I should (*gestures with right hand flat, moves downward from her face*)—suppress
>
> CALLIE. They ask "Can I get a smile" a lot
>
> YELENA. And so what should I—I should—(*repeats "suppress" hand gesture*)
>
> CALLIE. Personally, I find that it's like, you might do it but it's false, it's just to try to get them off your back, keep walking down.

What began as an association between the gendering of a costume piece (a safety helmet) and a scenario (a catcall) was soon shaped into a specific dramaturgy that included a setting, characters, speech, and action/reaction. Once again, this scene demonstrates the centrality of FTT's back and forth process. This time, the student directors' lived experiences were increasingly foregrounded in their suggestions—from generalities: "like many construction workers tend to do," and "something awful," to statements anchored in first-person experience: "One thing that I hear a lot is..." and "personally, I find . . ." Reading, here, gives lived experience a stage, collectively binding participants to texts and each other in ways that facilitate learning.

Scene 3: Revision

In the preceding scenes, we have seen how revisions emerge from excesses of meaning in our bodies and materials, and from lived experiences as they script and rescript our readings. The group has staged "a real woman" interpellated by a construction worker's catcall and has read with the excess of the assembled props—hard hat, pink heels, silky nightdress—as they enacted students' experiences and well-worn tropes of gender performance. Subsequent iterations of this scene involved switching out the hard hat for a military cap. With this revision came a new "set of corporeal styles" and modes of address: from a construction worker's charismatic insistence, "come on, let's see that pretty smile," to the militant command, "woman, come here!" Mobilizing these scene changes was a process of revision central to FTT as a way to read, one that emerged from our ever-closer attention *to the text* through how it moves in shared space. After the final iteration in which two actors switched gender roles (which included Yelena donning a knit beard in mock performance of Michael's beard), we asked the students if they were satisfied with the stagings of Butler's (1988) sentence. One student raised his hand and suggested the catcall scene had yet to engage with the proposition that "there is a sedimentation of gender norms" (ibid., 524).

> ELÁN. I feel like we haven't really set the stage yet for how the norms are enforced, because I believe they start when we are children, and then they follow us through, you know, adulthood, and so I think it would be better to kind of, uh—
>
> YELENA. So you're talking about, like, sedimentation, which is what she's . . . she's talking about sedimentation.
>
> ELÁN. Right. So, kind of like . . . I think it all starts with your family, your friends, and even your environment, but it starts when you're, like, young, when you are a child. I think those rules are enforced. That's when we start to feel like, "Okay, I need to be a boy, or I need to be a girl," or, you know what I mean? So, I think it would be better to stage maybe a family and then maybe a kid playing with, uh, Barbie dolls or something, or girls' stuff, and then the mom kind of reprehending that behavior.

In starting from the disconnect between the catcall scene and his own understanding of how gender performance arises in and through family relations, Elán directed us toward an alternate staging of the text as a way of doing words and worlds that would materialize different aspects of Butler's argument about learning to do gender. We were reading more closely, and more closely together; not because the scene Elán directed was better or more true, but because gendered performances of family and violent masculinity stood in tenuous relation with one another. In the interest of brevity, we won't describe the subsequent scenes staged with Elán's premise, but the point is that this insight emerged as a revision to previous scenes *in respect to* the text we were collectively reading and staging. When Elán returned to the text to ask what might have been left out of our first staging, and we jumped off into an entirely new staging ("I think it would be better to stage a family"), students practiced "reading against the grain" of past experiments, restaging as a way of reading restlessly.

Scene 4: But What Should We Do

We had so far been working *with* the grain of this lecture hall, positioning ourselves on-stage as materials for students safely assembled in the seats of the auditorium. Our gathering had been anchored in reading and rereading (staging and restaging) this one sentence by Butler (1988). Now the time had come to work against the lecture hall, to invite students out of their seats and assemble in reading groups. Each group received a different sentence from Butler's essay to read together, and found a corner of the auditorium to work in.

This move—from sitting to standing, from projecting a dramaturgy onto a distanced stage to projecting it out from one's own body—is a hard move to make. It is not only undergraduates who shrink back from this leap but also faculty members, police officers, conference goers and every other group we have introduced to FTT.[10] Yet, to do FTT means to read with and for each other, to collectively transform the space of gathering into the shared space of reading. And this requires standing up and doing something.

Each reading group was facilitated by one of the co-authors or the professor. One group, joined by Yelena, was given the following sentence to read:

> If the ground of gender identity is the stylized repetition of acts through time, and not a seemingly seamless identity, then the possibilities of gender transformation are to be found in the arbitrary relation between such acts, in the possibility of a different sort of repeating, in the breaking or subversive repetition of that style (Butler 1988, 520).

The group of about twelve people stood in a circle, discussing the sentence. There was talk about how to think of the gender performances we are familiar with not as "seamless identit[ies]" but as arbitrary, a "stylized repetition of acts through time" (ibid.). Despite this, the conversation kept returning to clichés of masculinity and femininity. Yelena finally asked, "But what should we *do*?" The ease of discussion was interrupted, and choices had to be made. The group suggested staging two competing versions of masculinity, but did this have to look like a cliché, a familiar gender performance from a world we know? Or could we invent forms of masculinity for a fictional world? One student suggested the latter:

[10] Readers should not conclude that including police officers in a list that also includes university students and incarcerated people signals a relativist commitment on our part. On the contrary, we acknowledge and have experienced substantial differences even in the sorts of readings we could do together. That said, our larger contention is that performance and theater making is already a constitutive part of these social roles and practices, which can be made visible and actionable by leaning into the provisionality of performance. The inclusion of police in this list references Aushana's (2021) work, which considers how role-play police scenario training texts become interpretable and stageable based on the lived experiences of participants in police academy exercises.

FIONA. I like the idea of inventing them. And it's hard to think of very specific, uh, tangible actions, and we could do something with (*gesturing to the prop table*) there's a bunch of these weird, uh, puff balls? And we could do something with that.

A basket of "puff balls," soft white snowballs made of synthetic fluff, was passed around. While each person picked out a ball, conversation continued among some group members who discussed whether the scene should show policing of the masculinities we were to enact.

FIONA, *while plucking a ball out of the basket, murmuring*— There are so many possibilities.

Indeed, possibilities were already being enacted by all the different ways the snowballs were suddenly being explored for their texture, their resilience and squeezability, how they sounded, how they smelled, how it felt to throw and catch them. Eventually it was throwing that captured the imagination of the group, and they went on to create two "cultures" of snowball masculinity expressed as specific modes of throwing and catching these balls. They performed a "subversive repetition" (ibid.) as one way of throwing-as-masculinity that relativized and influenced another culture of throwing styles. But even in this first moment of taking the snowballs into their hands, it was the feel of these soft toys that momentarily constituted a shared stage to assemble all the different ways of experiencing them. This scene reveals that it is not the embodied taking on of a role that is central in this kind of reading through doing, but rather the embedding oneself in a shared world that emerges as it is enacted. So, although Michael had "become" a "real man" or "a real woman" in the demo that began the class, what was crucial was not the individual experience of transformation but rather the complicity of enactment that was shared by all of us. In FTT, the reading belongs to the group, and the reading group includes all the material propositions—all the words and snowballs and various beards—that make both reading and group possible.

The four scenes in Act II demonstrate how FTT's shared enactments destabilized the subject positions of pedagogical practice. We found that a wobbly chair and a fuzzy ball could temporarily emerge as what teaches. Instead of enacting assumptions that the text—and by extension, the teacher—acts as a contained unit that transfers information to those who lack it, FTT engaged the "teaching text" as contingent and emergent, arising out of a web of living relations to contexts, spaces, and co-performers.

Act 3: Transformation in Pedagogy/FTT in a Prison Classroom

Discussions of pedagogy often assume the process of *learning* is continuous with that of *transformation*. This assumption is frequently shared between traditional transmission models of education and models of critical pedagogy: both have been concerned with transforming either naive or oppressed persons into engaged citizens with the skills to challenge dogma and shape future norms. In this section, we challenge the teleology of transformation to consider the tensions between what is learned by doing FTT and the goals of other critical pedagogies.

US universities, including highly prestigious ones such as Bard, Cornell, and the University of California, Los Angeles, have long partnered with prisons to bring higher education to incarcerated people.[11] As a part of that broad effort, Michael had the opportunity to teach a course for university credit in a state prison.[12] In prison education programs, students engage difficult texts in potentially transformative ways. These transformations are usually discussed in terms of the reduction of recidivism and are valued by policy makers, formerly incarcerated people, and their families: they improve lives, save governments money, and prevent future criminal acts. That is, what is considered transformed is the incarcerated person, and their transformation is considered in relation to their conformity to a system that renders them "criminal." Rather than focus on normative future transformations, however, incorporating FTT into a prison education program could allow participants to differently engage their lived environment. The interpretation of texts through performance requires movement and thereby facilitates the manipulation of space and materials for performance. That is, what could change was the classroom. Though our FTT practice began with texts of feminist theory, in the prison, for Michael, feminist theory informed engagement with a different sort of text, one usually thought of as a paragon of closure—the syllabus.

The syllabus outlines learning objectives and instantiates the standards and social commitments of effective learning. Though syllabi are typically treated as static texts to be referenced, *performing* syllabi could create opportunities for reading groups to negotiate the meaning of seemingly given institutional aspects of a course, such as "course policies" and "objectives." Acting out the syllabus could turn diversity and accessibility statements into embodied performances exploring movement and presence, and academic integrity policies might be performed through gestures signaling joint pledges to uphold honesty and fairness. Reading a syllabus out loud—sequentially or in other ways co-determined by the group—could create arrangements of embodied voices and space to denaturalize the social relations that the syllabus prescribes. While FTT is transformative in these ways, we are hesitant to foreground its liberatory possibilities; after all, as Dylan Rodríguez cautions,

> . . .to simply identify the sites wherein state violence inscribes, defines, and produces itself is not especially difficult," rather, one "central challenge . . . is to elaborate and analyze, with historical specificity, how different social, political and institutional sites of hegemonic or dominant power such as the university . . . exert a force on those sites, such as the prison, at which state violence is repeatedly and ritualistically performed (2006, 140).

[11] There is a long history of formalized education in US prisons dating to the late 1800s. College education has been available, to varying degrees, since the 1960s. The passage of the Violent Crime Control and Law Enforcement Act in 1994 made inmates ineligible for Pell grants and has limited access to such education. There has been a strong push by universities and several coalitions since the late 1990s to increase inmates' access to college education.

[12] Because incarcerated people are a vulnerable population that has historically been exploited to produce data for biomedical and other forms of research, asking these students for consent to be described, quoted or recorded was not possible. The account we present in Act 3, therefore, is informed by Michael's experiences of doing FTT to read a syllabus with incarcerated students, but does not reference personally identifiable information, actions of specific readers, or events in detail.

When FTT is done as a part of the university, whether on a campus or in a prison, the teacher who initiates FTT still represents that institution. But because FTT is an experimental practice rooted in the contingencies of shared interpretation, all participants, including the teacher, do not know exactly what they will come away with other than an experience of staging interpretation. This might mean that not everyone in the group is led to "challenge the politics of knowledge production," whether in ways that can be measured in learning outcomes or that appear actionable or relevant to those members. For example, in Michael's experience, several of the students did not enjoy doing FTT. They asked him to provide lectures instead of acting out texts together, feeling that they were not being sufficiently guided through the text. We do not disagree with their perspective on FTT. In another example we saw with students at the university, doing FTT did not disrupt race-based imbalances in classroom power and participation; when we initially posed questions to students in Act 2, it was almost always white students who responded first. Thus, not all positionalities were reflexively enacted, and notably absent from the scenes described were reflections on racialization, even while race played a role in classroom participation.[13] This is one way that race and racism are perpetuated, through enactments that are not seen to be noteworthy. We hope that the project of making relations and positionalities noteworthy—as we believe FTT encourages—might intervene in perpetuating such cycles. FTT is not necessarily revolutionary, but neither is it relativist; its praxis is in the immanent interpretability of its detours, discomforts, and other multiplicities that present themselves as potentially open to interpretation.

This openness of interpretation raises further questions about the potentials and limits of critical pedagogy. In her book *Teaching to Transgress* (1994), bell hooks recounts her experience with a difficult class she once taught, and reflects on how students' resistance to her radical pedagogical methods (which aimed "that everyone's presence be acknowledged") led her to realize the limits of the teacher in shaping the class relations, insights, and sense of liberation:

> One semester, I had a very difficult class, one that completely failed on a communal level. For reasons I cannot explain it was also full of "resisting" students who did not want to be in a classroom that differed in any way from the norm . . . . More than any other class I had taught, this one compelled me to *abandon the sense that the professor could, by sheer strength of will and desire, make the classroom an exciting, learning community*. (hooks 1994, 7–8, emphasis added).

Indeed, if not the professor, who and what teaches? We found that FTT necessitated letting go of lesson plans, and thus also resisted the standardization implicit in learning outcomes. We argue that this is because it locates learning (or "transformation") in ongoing encounters with shared interpretation. Its contribution, we suggest, lies not in a transformation that aims toward consensus or assimilation but in discomforting openness, inherent relationality, and restless iterativity. Thus, while FTT resembles and is indebted to radical theater methods like Boal's, this practice is not a rehearsal for revolution (Boal 2008, 98 and 144) but

[13] For example, white-presenting students made up approximately half of the class but spoke first and more frequently in the university classroom FTT sessions that we describe in Act 2.

rather a shared moving ground in which interpretation is an ongoing process. Whereas, for Boal, the "spectator is a bad word," (ibid.) and all spectators must be liberated as performers, in FTT, resistance and non-participation can be articulated and interpretable.

What We Learned: Rereading FTT and STS as Critical Pedagogy

What is FTT?

As an ongoing collaborative project in conversation with feminist theories and methods, our first readings of feminist texts moved us and have moved with us. FTT has helped us to be "[c]ommitted not to demystification and uncovered truths that support a well-known picture of the world but to speculation, curiosity and the concrete," where this type of reading "tries to provoke attention to the forces that come into view as habit or shock, resonance or impact" (Stewart 2007, 4). When we staged the habitual gender performance of de Beauvoir's "real woman" and the students staged the perpetual shock of misogyny in a catcall, our insistent returns to the texts provided kaleidoscopic renderings of lived experiences rather than bringing any one reality or reading into finite view. Whether we performed power structures that mark the construction site or the policies on the syllabus, the specificity of bodies became learning material while resisting fixed learning outcomes. After all, as Stewart reminds us, this learning "is an experiment, not a judgment" (ibid.).

In the opening sections of this article, we aimed to demystify our feminist experiment in reading multiply. We have emphasized interpretive flexibility as the first methodological pillar of FTT, describing how revision, restaging, and reinterpretation became our central reading strategies, leading our reading groups to engage each other in what we called "reading restlessly." FTT cultivated a restlessness of reading not only through inviting readers to treat stagings of the text as themselves texts to be interpreted (and reinterpreted), but also by asking that these interpretations were distributed, emerging from the theatrical arrangement of actual bodies, spaces, life experiences, and props (in the sense of proper objects *as* materialized propositions). Thus, as we came to understand, a second methodological pillar of FTT was a commitment to a distributed interpretation of texts grounded in the multiplicity and limits of a shared world. In other words, rather than asking individuals to demonstrate comprehension and mastery, FTT asks readers to commit to staging interpretations and to letting them go in the process of reading multiply. The scenes in Act 2 were empirical examples of how FTT as a "participatory experiment" (York and Conley, 2019, 4) redrew the boundaries of what, in the university, are called "readings." By showing how interpretations were contingently materialized (Scene 1), incorporated readers' lived experiences (Scene 2), revised (Scene 3) and finally embedded in shared worlds by the students themselves (Scene 4), we respecified the boundaries of a text by opening up and folding over (Klein 2017) the processes and practices of reading.

In Act 3, we reflected on what emerged when Michael took up FTT to read with incarcerated students in a prison education program. The text being read in Act 3 was not a piece of academic theory, but an infrastructural document: the course syllabus. Focusing on the consequential ways learning is materially and politically situated, this case brought forward the potentials and limitations of critical pedagogies like FTT for transformation. While the classroom experiment revealed the messiness and interpretive possibilities disguised by the idea of a fixed text, the prison site "unblackboxed" the classroom and its tacit expectations that learning flows from teacher to student.

How is FTT Relevant to STS as Critical Pedagogy?

Our experiences with FTT in university and prison classrooms led us to engage York and Conley's proposal for STS as critical pedagogy. The scenes of FTT we presented were not situated in spaces where students are explicitly studying either STS or STEM fields, and FTT was not developed to specifically address issues in STS. However, even in FTT's original driving question ("How could we do feminist theory when we convened to read feminist theory?), there is already significant overlap with the concerns of STS as critical pedagogy. That is, in both FTT as a reading practice and STS as critical pedagogy, sites of learning are actively reconfigured as sites of participatory exploration where attention is directed to the dynamic ways that standpoints, relations, built environments, and discursive conventions shape both "knowers" and what is to be known. Perhaps more importantly, both FTT and STS as critical pedagogy emphasize the experimental: that the conditions for knowing can be grasped by not taking them as given, but rather through attention to what happens when they are done differently. A central move of FTT was to (re)embed texts in the world as a way of revisioning both. In their focus on experimentation with alternate modes of learning-by-doing, both FTT and STS as critical pedagogy are oriented to learning as empirical world-making.

An instructive challenge for critical pedagogy arose in our practice of FTT: when the subject positions of teaching and learning were reconfigured, it was not clear who or what was teaching. Those were among the most provocative moments for us, but they also muddied the politics of our exercise. If *we* were not doing the leading, that also meant that there was not a clear destination that could be offered as a set learning outcome, and no singular vision of politics that guided our journey. In our interactions, "working against the grain" was not always equivalent to liberation. It was closer to a shared discomfort that, by being activated, became actionable. That action, in turn, was open to interpretation and iteration. But we ourselves were, and are, incapable of defining what those actions, interpretations, and iterations should be.

Instead, we are curious how further experimentation might begin to bring this challenge into shared attention. To this end, we have published a short score for FTT (Gluzman 2017a), and created a free, printable zine, The *Feminist Theory Theater Workbook* (Aushana et al 2022), a guide and invitation for readers to take up and join this project, and in so doing, revise the contours of FTT and STS critical pedagogies.

Try it! Future Work with *The Feminist Theory Theater Workbook*

We invite other readers to experiment with the practice of FTT itself. To facilitate this, we created a zine-style workbook meant to guide initial attempts to do FTT.[14] The workbook contains the "score" for FTT and a selection of exercises to help readers off the page and to prompt the iterative staging process that is central to FTT. The printable workbook is freely accessible to students, readers, and collaborators online (see below for URL). As a printed booklet, it can be brought into learning spaces, written in, drawn upon, and itself saved, discarded or shared. Do what you want with it.

[14] We were prompted to create the workbook as part of an experiment in publishing open-access research material on PECE (the Platform for Experimental Collaborative Ethnography) (Aushana et al 2022). A prototype of the Workbook can be found at: https://stsinfrastructures.org/content/feminist-theory-theater-workbook.

The workbook is not meant only as a guide to trying out FTT or as an end unto itself. It is also meant to be a part of a collective, open-ended exploration of what FTT can do as an STS critical pedagogy. So, while the Workbook encourages a reader to write notes in the margins, it also invites those readers who did not discard their used workbooks to contribute scans to an archive of observations, frustrations, and insights that emerge in reading particular texts through FTT.[15] These will be published on https://www.feministtheorytheater.org/ as the *Feminist Theory Theater Reading Room* (Aushana et al, n.d.), becoming an archive of FTT: a collection of concrete examples of how FTT can happen, a catalog of reading-through-staging that documents the social lives of the texts you read, and a record of this ongoing experiment in critical pedagogy, always itself open to reiteration and reinterpretation.

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[15] We invite you to send us pictures or PDFs of your marked-up workbooks for a library archiving FTT readings, and would love your feedback on reading through FTT, and using this chapbook. You can submit your marked-up chapbooks and/or feedback at: https://www.feministtheorytheater.org/.

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Data Availability

Data published in these article can be accessed in STS Infrastructures at: https://n2t.net/ark:/81416/p4qs3f.

References

Alač, Morana. 2011. *Handling Digital Brains: A Laboratory Study of Multimodal Semiotic Interaction in the Age of Computers*. Cambridge, MA: MIT Press. https://doi.org/10.1080/0740770X.2020.1907685.

Aushana, Christina. 2021. "Inescapable Scripts: Role-Playing Feminist (Re)Visions and Rehearsing Racialized State Violence in Police Training Scenarios." *Women & Performance: A Journal of Feminist Theory* 30(3): 284–306. https://doi.org/10.1080/0740770X.2020.1907685.

Aushana, Christina, Michael Berman, Yelena Gluzman, and Sarah Klein. n.d. *Feminist Theory Theater Reading Room*. Accessed September 5, 2024. https://www.feministtheorytheater.org/.

Aushana, Christina, Michael Berman, Yelena Gluzman, and Sarah Klein. 2022. "Feminist Theory Theater Workbook Prototype." *STS Infrastructures, Platform for Experimental Collaborative Ethnography*. Accessed September 26, 2024. https://stsinfrastructures.org/content/feminist-theory-theater-workbook.

Barton, Angela Calabrese. 1997. "Liberatory Science Education: Weaving Connections Between Feminist Theory and Science Education." *Curriculum Inquiry* 27(2): 141–163.

de Beauvoir, Simone. [1952] 1974. *The Second Sex*. New York: Vintage Books.

Boal, Augusto. 2008. *Theatre of the Oppressed*. Translated by Charles A. McBride and Maria-Odilia Leal McBride. London: Pluto Press.

Bowker, Geoffrey C. 2014. "Emerging Configurations of Knowledge Expression." In *Media Technologies: Essays on Communication, Materiality, and Society*, edited by Tarleton Gillespie, Pablo J. Boczkowski, and Kirsten A. Foot. Cambridge MA: The MIT Press, 99–118.

Butler, Judith. 1988. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal* 40(4): 519–531. https://doi.org/10.2307/3207893.

Cavicchi, Elizabeth. 2014. Learning Science as Explorers: Historical Resonances, Inventive Instruments, Evolving Community." *Interchange* 45(3): 185–204. https://doi.org/10.1007/s10780-015-9235-9

Cipolla, Cyd. 2019. "Build It Better: Tinkering in Feminist Maker Pedagogy." *Women's Studies* 48(3): 261–282.

Downey, Gary, and Teun Zuiderent-Jerak. 2017. "Making and Doing: Engagement and Reflexive Learning in STS." In *The Handbook for Science and Technology Studies*, Fourth Edition, edited by Ulrike Felt, Rayvon Fouché, Clark A. Miller, and Laurel Smith-Doerr. Cambridge, MA: MIT Press, 223–251. https://doi.org/10.1080/00497878.2019.1593842.

Downey, Gary, and Teun Zuiderent-Jerak, eds. 2021. *Making & Doing: Activating STS through Knowledge Expression and Travel*. Cambridge, MA: MIT Press.

Freire, Paulo. 1970. *Pedagogy of the Oppressed*. New York: The Seabury Press.

Giordano, Sara. 2018. "Theorizing Feminist Tinkering with Science Methodologies." *Canadian Journal of Science, Mathematics and Technology Education* 18(3): 222–231. https://doi.org/10.1007/s42330-018-0027-y.

Goodwin, Charles. 1994. "Professional Vision." *American Anthropologist* 96(3): 606–633. https://doi.org/10.1525/aa.1994.96.3.02a00100.

Gluzman, Yelena 2017a. "Feminist Theory Theater." In *Imagined Theatres*, edited by Daniel Sack. London: Routledge, 80–81.

———. 2017b. "Research as Theatre (RaT): Positioning Theatre at the Centre of PAR, and PAR at the Centre of the Academy." In *Performance as Research: Knowledge, Methods, Impact*, edited by Annette Arlander, Bruce Barton, Melanie Dreyer-Lude, and Ben Spatz. London: Routledge, 105–132.

———. 2021. "Reflexivity Practiced Daily: Theatricality in the Performative Doing of STS." In *Routledge Handbook of Art, Science, and Technology Studies*, edited by Hannah Rogers, Megan Halpern, Dehlia Hannah, and Kethryn de Ridder-Vignone. London: Routledge, 249–271.

Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14(3): 575–599. https://doi.org/10.2307/3178066.

Halpern, Megan. 2014. *Beyond Engagement: Meaningful Relationships Among Experts and Publics in the Performing Arts and Sciences.* PhD Diss., Cornell University.

hooks, bell. 1994. *Teaching to Transgress: Education as the Practice of Freedom*. New York: Routledge.

Jungnickel, Kat. 2023. "Speculative Sewing: Researching, Reconstructing, and Re-imagining Wearable Technoscience." *Social Studies of Science* 53(1): 146-162. https://doi.org/10.1177/03063127221119213.

Jungnickel, Kat, ed. 2020. *Transmissions: Critical Tactics for Making and Communicating Research*. Cambridge, MA: MIT Press.

Klein, Sarah. 2017. *Getting Experimental: Performing Cognition in the EEG Lab*. PhD Diss., University of California, San Diego.

———. 2022. "Between People and Paper: Inhabiting Experiment in a Journal Club." *Science as Culture* 32(3): 1-28. https://doi.org/10.1080/09505431.2022.2076587.

Kline, Ronald R., and Trevor Pinch. 1996. "Users as agents of technological change: The social construction of the automobile in the rural United States." *Technology and Culture* 37(4): 763–795. https://doi.org/10.2307/3107097.

Liboiron, Max. 2020. "Exchanging." *In Transmissions: Critical Tactics for Making and Communicating Research*, edited by Kat Jungnickel. Cambridge, MA: MIT Press, 89–108.

Lynch, Michael. 1985. *Art and Artifact in Laboratory Science*. London: Routledge.

Myers, Natasha. 2015. *Rendering Life Molecular: Models, Modelers, and Excitable Matter*. Durham, NC: Duke University Press.

Myers, Natasha, and Joseph Dumit. 2011. "Haptic Creativity and the Mid-Embodiments of Experimental Life." In *A Companion to the Anthropology of the Body and Embodiment*, edited by Frances E. Mascia-Lees. Sussex: Wiley-Blackwell, 239–261.

Novella, Caro. 2017. "Arousing Formlessness: Collaborative Encounters with Chemotherapy." *Performance Research* 22(6): 54–56. https://doi.org/10.1080/13528165.2017.1414405.

———. 2021. "Scoring Enquiry, Unsettling Ignorance: Moving with Racialized Cancer Uncertainties." *Performance Research* 26(4): 110-117. https://doi.org/10.1080/13528165.2021.2005968.

Pérez, Elena, Sophia Efstathiou, and Tsjalling Swierstra. 2019. "Getting Our Hands Dirty with Technology: The Role of the Performing Arts in Technological Development." *Peripeti* 16(8): 104–121. https://doi.org/10.7146/peri.v16iS8.117599.

Philip, Thomas, and Ayush Gupta. 2020. "Emerging Perspectives on the Co-Construction of Power and Learning in the Learning Sciences, Mathematics Education, and Science Education." *Review of Research in Education* 44(1): 195–217. https://doi.org/10.3102/0091732X20903309.

Riley, Donna and Lionel Claris. 2009. "From Persistence to Resistance: Pedagogies of Liberation for Inclusive Science and Engineering." *International Journal of Gender, Science and Technology* 1(1): 1-25.

Rodríguez, Dylan. 2006. *Forced Passages: Imprisoned Radical Intellectuals and the U.S. Prison Regime*. Minneapolis, MN: University of Minnesota Press.

Rogers, Hannah, Megan Halpern, Dehlia Hannah, and Kathryn de Ridder-Vignone, eds. 2021. *Routledge Handbook of Art, Science, and Technology Studies*. London: Routledge.

Star, Susan Leigh. 1990. "Power, Technology and the Phenomenology of Conventions: On Being Allergic to Onions." *The Sociological Review* 38(S1): 26–56. https://doi.org/10.1111/j.1467-954X.1990.tb03347.x.

Stewart, Kathleen. 2007. *Ordinary Affects*. Durham, NC: Duke University Press.

York, Emily and Shannon N. Conley. 2019. "STS As Critical Pedagogy NSF Proposal Project Description," *STS Infrastructures, Platform for Experimental Collaborative Ethnography*. Accessed September 21, 2024. https://stsinfrastructures.org/content/sts-critical-pedagogy-nsf-proposal-project-description.