TRANSFORMING NOVICE LEARNERS INTO EXPERTS THROUGH PERFORMANCE, REPRODUCTION, AND REPRESENTATION: A PERFORMANCE STUDIES ANALYSIS OF HIGH-FIDELITY SIMULATION IN HEALTHCARE EDUCATION

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ABSTRACT

Simulation is a major component in healthcare education and utilizes many performance-based practices, especially when it includes trained actors to perform as patients receiving simulated care by healthcare learners. The literature that guides the processes of these "high-fidelity" simulations is mostly written from a healthcare perspective, even when the authors are discussing concepts related to performance and theater. This dissertation seeks to address this imbalance by identifying and exploring a wide array of themes that emerge when simulation in healthcare education is framed as a performance, including immersivity, liveness, perceptual multistability, improvisation, and performativity. These themes are grounded on the twin concepts of representation and reproduction to highlight the degree to which simulation shapes its participants and the world they inhabit. What is represented and reproduced – and how it is done through simulation – has a high potential to be replicated in healthcare practice with actual patients. Additionally, the COVID-19 pandemic, which took place in the final two years of writing this dissertation, disrupted the status quo and challenged many of the practices and theories that long informed simulation pedagogy and performance studies. This disruption, however, created the opportunity to reimagine our respective disciplines and thus improve our practices. Ultimately, this dissertation highlights the performative, interpretive, and performance aspects at play within simulation in healthcare education so that simulation producers can further enhance the intentionality of what they represent and reproduce at their facilities. This can only lead to better outcomes for their learners and for the healthcare community.

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CHAPTER 1. INTRODUCTION

This dissertation is about simulation performances within healthcare education. My interest in this topic emerged out of an opportunity to help establish and develop a simulated patient program between the Department of Theatre & Dance and the School of Nursing and Dental Hygiene (SONDH) while I was working towards my Master of Fine Arts in directing at the University of Hawai‘i at Mānoa. This program, now called HealthCAST (Collaboratively Acted Simulation Training), supported its first simulation performance on March 7, 2013 and was quickly declared a success. SONDH hired me as a graduate assistant to help grow the program as well as recruit and train the actors performing as simulated patients. In its first year, HealthCAST supported three different simulation scenarios in the undergraduate nursing curriculum, but it quickly expanded to support over two dozen different simulation scenarios throughout the undergraduate and graduate nursing curricula, as well as a scenario in the undergraduate dental hygiene curriculum. HealthCAST also supports several interprofessional simulations that, depending on the scenario, may include learners from medicine, pharmacy, social work, spiritual care, education, dietetics, and athletic training. The increased demand for simulated patients led to the creation of additional graduate assistantships. Some of the assistantships were funded by the university on behalf of the Department of Theatre & Dance whereas some were created by SONDH. After graduating with my MFA, I continued as a PhD student in the Department of Theatre & Dance’s new performance studies track to grow HealthCAST and to use it as the topic of this dissertation. In 2021, SONDH converted my graduate assistantship into a permanent part-time position.

However, my interest in this topic quickly expanded well beyond HealthCAST to encompass simulation in healthcare education in its entirety: from the physical spaces that house simulation performances to the theories that (un)consciously inform our understanding of simulation and its relationship to reality. Focusing only on actors performing in non-traditional spaces (i.e., not on a stage in a building called a "theater") excludes much of the rich and complex activity that is simulation in healthcare education and thus all the constituent components that makes it a thoroughly compelling topic for performance studies. After all, not every college department creates a fully staffed, multi-million-dollar, state-of-the-art facility to represent life in the professional sphere. Nor is every college student asked, as a sustained part of their educational journey, to wear the uniform of their future profession and *perform* a future version of themselves – one that is fully trained, licensed, and practicing – while interacting with simulated clients so that their behaviors and skills can be assessed by their peers and instructors. And yet, that is what takes place at THSSC and other simulation centers around the world. This is not to say that simulation pedagogy requires expensive facilities replete with the latest technology to be efficacious. There are simulation centers that turn to other strategies, such as role play and forum theater, to provide their learners with similar experiences when they lack access to the kind of resources found at THSSC. I will explore how forum theater can support simulation activities in the final chapter. For now, I simply want to acknowledge that simulation in healthcare education relies heavily upon performance practices to transform novice learners into expert care providers.

My choice to use the verb "perform" in the previous paragraph is deliberate. Performance is a key aspect of simulation in healthcare education, but little has been written about it from a performance studies perspective. This does not mean simulation performance has been entirely

ignored by performance studies. Scott Magelssen's book, *Simming: Participatory Performances and the Making of Meaning*, is the first major exploration of simulation activities within performance studies (Carlson, *Shattering Hamlet's Mirror*, 116). Magelssen documents his participation in at least a dozen different simulation performances, from museum exhibits on America's history of racial injustices to performing as a corpse during a Civil War era embalming simulation, to observing the activities of the United States Army's full-scale simulation of Iraqi and Afghani towns in a California desert. Simulation performance in healthcare education is not covered in Magelssen's book.

Alex Mermikides devotes an entire chapter to simulation in healthcare education in her 2020 book, *Performance, Medicine, and the Human*. Mermikides' book "explores some of the ways in which 'the human' is enacted in theatre and performance, in medicine and, above all, in those practices that sit in the interfaces, overlaps, and splices of these domains" (3). Although her book was published only a year before this dissertation was completed, Mermikides still feels compelled to "invit[e] the reader to accept [medical simulation] as a performance," suggesting that such a perspective is novel within performance studies (and, perhaps, in healthcare) (56). Mermikides justifies this invitation because both medical simulation and performance "constitute a 'mimetic encounter'" and "foreground 'art and life' and the 'reciprocity between different spheres of experience, for example, by generating 'real' effects within a fictional frame" (ibid.). Mermikides' dramaturgical analysis of medical students delivering bad news to simulated patients raises valid concerns about teaching healthcare learners how to be empathetic through performance. Following simulation critic Alan Bleakley, who writes the foreword to her book, Mermikides wonders if healthcare learners are truly learning to be empathetic or simply learning how to simulate empathy to pass a course. She views this training almost as acting training,

arguing that doctors learn to present a certain version of themselves to their patients even beyond the halls of a simulation center (83). I will address these concerns in the final chapter.

This dissertation builds off the foundation set by Magelssen (which will be discussed further below) and addresses some of the concerns raised by Mermikides (and Bleakley) while also exploring themes and concepts relevant to the topic at hand. My eight years of experience with THSSC and the courses I completed as a PhD student inform the various theories I have woven together throughout this dissertation. I am not using this dissertation to solve a problem since simulation pedagogy has proven effective and beneficial for many healthcare institutions. Rather, I see this dissertation offering two different but complimentary focuses depending on the reader.

For those with a performance and theater background, this dissertation will likely serve as a thorough introduction to high-fidelity simulation performance in healthcare education. It also contributes to several ongoing conversations within the performance studies community, such as notions of immersivity, the perceived passivity of audiences, improvisatory acting, and liveness. Furthermore, I hope this project inspires other theater and performance studies scholars to pursue research on this topic. No dissertation or book can exhaust a subject, and there is plenty here for future scholars to pursue. I also hope it encourages other healthcare and theater departments to collaborate on programs wherein the respective bodies of knowledge from the two disciplines are mutually acknowledged, respected, and applied to the benefit of all their learners.

For those with a healthcare background, this dissertation will likely provide new perspectives on familiar concepts. I hope that applying a performance studies lens to simulation in healthcare education will lead to a deeper understanding of the performative, interpretive, and

performance aspects at play within this modality. I believe that framing these analyses on the twin concepts of representation and reproduction highlights the degree to which simulation shapes the actual world. What is represented and reproduced – and how it is done through simulation – has a high potential to be replicated in healthcare practice with actual patients. The stories and people that feature in simulation scenarios can lead to awareness just as much as they can lead to erasure. Performance studies thus offers invaluable tools to enhance the intentionality of simulation producers, which can only lead to better outcomes for the learners and, thus, the entire healthcare community.

This is especially true considering that THSSC is housed on the University of Hawai‘i at Mānoa campus, which itself is situated on the *ahupua‘a* of Waikīkī, in the *moku* of Kona, on the *mokopuni* of O‘ahu, and in the *pae‘aina* of Hawai‘i. Hawai‘i is an indigenous space whose original people are today identified as Native Hawaiians. Her Majesty Queen Lili‘uokalani yielded the Hawaiian Kingdom and its territories under duress and protest to the United States to avoid the bloodshed of her people. Generations of Indigenous Hawaiians and their knowledge systems have shaped Hawai‘i in a sustainable way that allows its residents – including those who work and study at the University of Hawai‘i at Mānoa – to enjoy its gifts today (see Bruno). Those who benefit from this rich heritage must also hold themselves responsible to recognize, work through, and discard racist practices, patterns, hegemonies, and power relations that perpetuate the history of settler colonialism in Hawai‘i (see Wessendorf). This is an ongoing process: The Department of Theatre & Dance is undergoing a major restructuring of its programs to go beyond a Euro-American focus on the content it teaches in its classrooms and produces on its stages. Since 2001, SONDH has supported its ‘IKE AO PONO program, whose goals is to “increase the number of Native nurses in order to advance the healthcare and wellbeing of Native

islanders and all peoples throughout Hawaii nei" ('IKE AO PONO). Simulation, therefore, can have a valuable role towards this important responsibility by preparing its learners to care for this community. This includes the stories told within its scenarios and the people cast to tell those stories. I will address this challenge at various points throughout this dissertation.

Simulation in healthcare education bridges the gap between novice learners and experts by representing and reproducing the healthcare system as it currently exists. This makes sense given its pedagogical purpose. However, I ultimately hope to see more simulation activities that serve as a model *for* reality, rather than a model *of* reality that confirms the status quo. This approach would take full advantage of simulation's ability to facilitate positive changes in the healthcare system, such as strengthening empathetic communication and decreasing provider burnout.

Confidentiality

Every person who participates in simulation at THSSC, including observers, must sign a confidentiality agreement, which states that "all activities in the Simulation Center are considered confidential, whether electronic, written, verbal, observed, or overheard." The Agreement admonishes the reader to adhere to all "federal and state laws" and states that "sharing scenario experiences […] will be considered cheating" and that "[a]ny other inappropriate sharing, posting to social media, discussion, recording, reproducing, revealing or disclosure of simulation activity is a violation of University policy and may be grounds for disciplinary and/or legal action." This agreement serves two purposes: It ensures that learners feel safe to practice their newly acquired skills without having their potential mistakes follow them into the actual world. Secondly, it discourages learners from sharing the particulars of a

simulation scenario with their peers. Even though most simulation performances at THSSC are not graded, the faculty want to ensure that everyone enters the simulation center on even footing and goes into the simulation performance with no advance knowledge on what will occur during the scenario.

This agreement also limits what I can include in these pages. Early into the dissertation writing process, I sent a sample of my writing to the nursing faculty member on my committee. I wanted to see what could be included in my efforts towards a thick description of simulation performances. The answer was: not a lot. The nursing faculty member on my committee acknowledged that, although unlikely, it is not outside the realm of possibility that a learner could find this dissertation, read it, and receive advanced knowledge of the simulation scenarios.

One of the constant themes of my graduate assistantship has been navigating the differences between nursing and theater/performance studies. Most of the time, this referred to differences in communication; we often use the same words, but with drastically different meanings. With regards to this dissertation, however, these differences erected obstacles that could not be overcome directly. A new approach was needed and, after a year or so of fretful deliberation, I settled on tipping my dissertation towards the theoretical. In lieu of thick descriptions and narrative ethnographies, I will lean on healthcare literature to support arguments drawn from theory. And, whenever possible, I will bring in my own experiences with simulation at THSSC, albeit in the most general of ways as to not run afoul of the confidentiality agreement.

Overview of Simulation in Healthcare Education

Although the next chapter details the performance processes of a high-fidelity simulation scenario, it will be helpful to provide a brief overview of simulation in healthcare education here

at the start of this dissertation. Healthcare educators use simulation to close the gap between novice and expert. Simulation activities are designed to provide participants with a safe space to apply their newly acquired skills and knowledge (while possibly making mistakes) and receive feedback from their instructors and peers on their performance – after all, no one *actually* dies in simulation. Simulations often take place in specialized facilities that reproduce actual hospitals and clinics. Simulation activities are usually divided into three phases: a pre-simulation performance preparation, the simulation performance, and a post-simulation debriefing session. The pre-simulation preparation begins before the learners arrive at the simulation center and includes in-class lectures, assigned readings, clinical visits, and homework. It also includes a period immediately before the simulation performance (sometimes referred to as the "pre-brief") where the simulation staff disseminates information to the learners, such as the policies and procedures of the simulation center and any special rules for the upcoming simulation performance. The healthcare facilitator may spend a few minutes reviewing relevant information before sending the first group of students to the simulation theater. The simulation performance involves learners interacting with simulated patients performed by their peers (referred to as "confederates"[1]), by manikins of varying fidelity (i.e., the degree to which a manikin reproduces an actual patient), or by actors trained in simulation performance. Learning objectives, developed by the nursing faculty in conjunction with national standards, guide the performance and determine how the simulation facilitators (either the learners' current professor or another member trained in simulation pedagogy) will assess the learners' performance during the

[1] Nestel et al. acknowledge that this term carries connotations to the U.S. Civil War and the Confederacy's goal to maintain slavery but argues that "the lower case and capitalization of the first letter changes the meaning" and justifies its continued use because the "term confederate is used internationally although not universally in health care simulation" (612). This will be the only time I use the term in this dissertation. I do not use it in practice because one does not hear the "lower case and capitalization," only its awful connotation. I only included it here because it is unfortunately, as Nestel et al. admits, a common term in simulation pedagogy.

simulation. The simulation performance is livestreamed to the learners not performing in the scenario who observe from a separate room. Facilitators can use the streaming software to bookmark significant moments during the simulation performance so that they can easily recall the event during the post-simulation debriefing session. During the post-simulation debriefing, healthcare learners engage in guided reflection on their experiences, receive feedback from their peers and facilitators, and synthesize the entire session into their future practice. Many simulation scenarios are "unfolding," i.e., they consist of multiple scenes that connect to one another chronologically. In these unfolding scenarios, the cycle of pre-simulation, simulation performance, and post-simulation debriefing is repeated for the healthcare learners until the entire scenario is completed. Actors performing as simulated patients participate in the simulation performance and the final post-simulation debriefing. Following the simulation session, simulation technicians solicit feedback from the learners and the facilitators using online evaluation forms.

Simulation is a ubiquitous modality in healthcare education. As of this writing, the Society for Simulation in Healthcare has a directory with just under five hundred and fifty simulation centers in the United States alone. In 2014, The National Council of State Boards in Nursing found that up to fifty percent of traditional clinical hours could be replaced with high quality simulation (Hayden et al, S3). And, when hospitals had to refuse student clinical hours during the COVID-19 pandemic, healthcare educators leaned heavily on simulation activities to replace those lost opportunities. Simulation's efficaciousness is often attributed to well-defined learning objectives, the relationship between fidelity and skill transferability, the capabilities of the simulators, or the inclusion of certain pedagogical theories within the design of simulation scenarios (Alinier; Tun et al.; Rodgers et al.; Dieckmann et al.).

Performance (Studies)

Most introductory texts on performance studies begin by calling performance a "contested concept," a phrase coined by W.B. Gallie that refers to a concept whose very existence contains (and necessitates) multiple meanings and connotations that come into conflict with one another in its various usages (Carlson, *Performance*, 1; Fischer-Lichte 29; Madison and Hamera xi). Even among performance scholars, performance is defined differently. For example, performance scholar Marvin Carlson provides three definitions for performance: "the display of skills," "patterned behavior," and "keeping up the standard" (*Performance* 2-5). These definitions align with how healthcare literature uses performance to mean both "the display of skills" and "keeping up the standard" (Archer). Richard Schechner, often considered the founder of performance studies, gives his readers a multitude of definitions. He explains that "performances are actions" that occur in "eight sometimes separate, sometimes overlapping situations" that include performance "in everyday life – cooking, socializing, 'just living'; in the arts; in sports and other popular entertainment; in business; in technology; in sex; in ritual – sacred and secular; and in play" (Schechner 1, 30-31).

For many, however, performance simply suggests a form of entertainment, such as stage productions, movies, and television. To then call simulation – an integral component in many healthcare educational institutions – a "performance," or to suggest that the healthcare learners are "performing," opens the door for the misperception that simulation is "extracurricular, insubstantial, or what you do in your leisure time" (Madison and Hamera xii). Madison and Hamera observe that in "certain areas of the academy these narrow notions of performance have created an 'anti-theatrical' prejudice (Conquergood) that diminishes performance to mimicry,

catharsis, or mere entertainment […]" (ibid.). And yet, simulation is swimming in theatrical references. THSSC calls the rooms where simulations take place the "simulation *theater*." The Promoting Excellence and Reflective Learning in Simulation (PEARLS) debriefing approach provides facilitators with a "debriefing *script*" (emphasis added) when guiding learners through the debriefing process (which is used to identify "*performance* gaps") (Cheng et al. 420, emphasis added). Simulation conferences offer attendees classes in preparing and applying realistic moulage to simulate wounds. And, two medical professors, Gretchen Case and Daniel Brauner, have gone so far as to suggest using performance studies as a source to develop "empathetic imagination" in medical students (159).

Performance scholars have expanded the narrow definition of performance by viewing it as "a generative force and a critical dynamic within human behavior and social processes" that demonstrate "how human beings fundamentally make culture, affect power, and reinvent their ways of being in the world" (Madison and Hamera xii). Performance scholars may still reflect upon traditional notions of performances in their analyses – and they may still use structures of traditional performance events to understand the concept under analysis – but the expansion of its definition now emphasizes how performance is "a way of *creation* and *being*" that brings forth a movement to "seek and articulate the phenomenon of performance in its multiple manifestations and imaginings" (ibid., emphasis in original).

How scholars go about this task varies. According to Schechner, there are two distinct brands of performance studies. Schechner's brand, practiced at New York University, was heavily influenced by his own work as a theater director and by his friendship with anthropologist Victor Turner. Schechner explains that his brand of performance studies focuses on "theater, the social sciences, feminist and queer studies, postcolonial studies,

poststructuralism, and experimental performance" (2006, 5). He contrasts his brand of performance studies with Northwestern University's department, whose focus on "oral interpretation, communications, speech-act theory, ethnography […], personal narrative, literature, culture, technology, and performance theory" was directly influenced by the leadership of ethnographer Dwight Conquergood (ibid.).

Although Schechner argues that "these two approaches share a common commitment to an expanded vision of 'performance' and 'performativity,'" they also share an open reliance on interdisciplinary collaboration, reveling in Trinh T. Minh-ha's pithy observation that "despite our desperate, eternal attempt to separate, contain, and mend, categories always leak" (Schechner 2, Minh-ha 94). For example, Madison and Hamera's introductory chapter introduces many subject areas that intersect with performance such as "performance as social behavior," "performance as experience or experience as performance," "performativity," "performance and globality," and "performance and/as representation," in addition to intersections between performance and literature, pedagogy, politics, ethnography, history, and theory. Carlson also organizes his introductory text into various intersections with performance and other disciplines, such as anthropology, sociology, psychology, and linguistics. Therefore, linking simulation in healthcare education with performance studies is well within the norms of the latter discipline.

This openness towards other disciplines is part of performance studies' appeal. Performance scholar Peggy Phelan remembers that, as a graduate student in the 1980s, she was drawn to the work of Schechner and Turner because of its "generosity and porousness, its undisguised desire to be 'taken up'" (4). She argues that performance studies' capacity to reach across multiple disciplines allowed it to "escape the conventions of methodological allegiance to a particular field's system of knowledge" and forge "a new intercultural epistemology" (4).

However, it was this same openness that allowed some to say that "performance studies had so broad a focus precisely because it had nothing original to say" (Phelan 5). Phelan does not directly respond to this critique, but instead counters with an assertation that critics of performance studies miss the beauty of a discipline defined by a multitude of voices. Theater and anthropology may have served as a foundation for performance studies, but Phelan invites readers to imagine an age that is post-theater and post-anthropology. Facing the future (and the future of a discipline), Phelan is allured by the "ends of performance," which she defines as "the congenial, albeit often secret, relation between futures and ends" (ibid). The future, for Phelan, holds considerable promise and power because it is intimately tied to our pasts, which she labels as "'ends' so that we might one day reach them. For we know that there is no future that remains untouched by the whispering pass of our many pasts" (Phelan 6). The past, for performance studies, is defined by a "careful recitation of the facts of the event" (Phelan 7). This is especially clear when looking at Schechner's vision of performance studies, where scholars do not "'read an action or ask what 'text' is being performed" but rather examine the "behavior" of whatever is under consideration (Schechner 2). His brand of performance studies focuses on the ongoing relationship between the performance and those who encounter it, the exploration of "how, when, and by whom was it made, how it interacts with those who view it, and how [it] changes over time," even if the subject under consideration is relatively stable, such as a map or a painting (ibid.). Phelan, with an eye towards the future, invites scholars to seek out

> curative interpretations, to the affective and ideological consequences of performance events […]. Such interpretations, which are always reinterpretations are also what I most hope will become the future of the field and the truest end of performance – truest in the

> sense that they help us move past the time of diagnosis and bring about, enact, give us the time of the cure (7).

To ensure that this dissertation rises to Phelan's charge, I will use the following definition from folklorist and anthropologist Richard Bauman to serve as a foundation for my studies. Bauman defines performance as a

> specifically marked mode of action, one that sets up or represents a special *interpretive* frame within which the act of communication is to be understood. In this sense of performance, the act of communication is put on display, objectified, lifted out to a degree from its contextual surroundings, and opened up to scrutiny by an audience. Performance thus calls forth special attention to and heightened awareness of the act of communication and gives license to the audience to regard it and the performer with special intensity. Performance makes one communicatively accountable; it assigns to an audience the responsibility of evaluating the relative skill and effectiveness of the performer's accomplishment. (1992, 44, emphasis added)

It is not hard to connect Bauman's definition of performance to the practice of simulation in healthcare education. The learners perform certain tasks in a specialized setting. They are guided by learning objectives set forth by the instructors against which their performance is observed and critiqued. The lessons gained from the experience and the subsequent conversation contributes to their nascent professional identity. From the moment the learners arrive at the simulation center to the moment they leave, they are performing certain behaviors that

demonstrate their identity as (future) healthcare professionals to their audience of peers and facilitators. As Carlson observes, "the recognition that our lives are structured according to repeated and socially sanctioned modes of behavior raises the possibility that all human activity could potentially be considered as performance, or at least all activity carried out with a consciousness of itself" ("Performance," 4). This, of course, includes simulation; simulation is a performance.

Interpretive Communities

Bauman's definition, with its emphasis on the audience (or spectator) and the interpretive frame erected vis-à-vis performance, suggests reader-response and reception theory, which is "concerned with how people other than the author or creator contribute meaning and import of a work of art" (Fortier 132). As the names suggest, these theories originated with the relationship between the readers of literary texts and their authors, but Carlson argues that these theories can help us understand how an "audience learns to respond [to a performance] or what demands and contributions of its own it brings to the event" ("Theatre Audiences and the Reading of Performance" 11). Likewise, these theories can also help us understand simulation in healthcare education, even though it is not an artistic endeavor.

Mark Fortier observes two major trends of reader-response and reception theory: One is "prescriptive, attempting to say how culture *should* be received" that supposes a right or wrong reading (134, emphasis in original). The other is "descriptive, attempting to understand *the way* reception works without advocating one particular approach" (Fortier 135, emphasis added). One notable theorist in the descriptive vein is Stanley Fish, who engaged in an experiment with his students that informed his notion of *interpretive communities*. Fish wrote a list of names on a

chalkboard, drew a frame around it, and wrote a fake page number above the frame. He told his students that the words within the frame was a religious poem and asked them to interpret it. Immediately, the students began employing the different interpretive strategies they had covered in class to make sense of the "poem." Fish likened the students' behavior as "following a recipe" because they pursued a line of interpretation taught to them for whenever they encountered an esoteric poem (Fish 326). This led Fish to the realization that "interpretation is not the art of construing but the art of constructing. Interpreters do not decode poems; they make them" (Fish 327).

Fish's analysis allows us to recognize just how many forces guide our interpretations of the world and how we see ourselves within it. He poses the challenge of describing the difference between "a poem" and "an assignment," identifying a dizzying array of concentric circles that inform not only our understanding of those two terms but our entire understanding of the world. Even something as simple as walking around a university campus is informed by layers of interpretation. He writes,

> You might think that when you're on campus (a phrase that itself requires volumes) that you are simply walking around on the two legs God gave you; but your walking is informed by an internalized awareness of institutional goals and practices, of norms of behavior, of lists of do's and don't's [sic], of invisible lines and the dangers of crossing them; and, as a result, you see everything as *already* organized in relation to those same goals and campuses. (Fish 330, emphasis in original)

Of course, these norms of behaviors, invisible lines, and related dangers change depending on the context and our surroundings. We conform to them (or not) because we have learned how to exist within those institutional structures; this is related to the concept of *performativity*, which is discussed in detail in the final chapter.

Fish argues that the related "artifacts" of a particular institution, such as an "assignment" or, say, a simulation performance, are all "the products and not the producers of interpretation, and while the differences between them are real, they are interpretive and do not have their source in some bedrock level of objectivity" (331). Fish anticipates that his theory may be labeled as "subjective", but he deflects this critique with his core argument: Interpretive strategies are not subjective but "social and conventional," which prevents us from ever creating new approaches out of whole cloth (ibid.). Our "mental operations" are "limited by the institutions in which we are *already* embedded" and the products we create (an assignment, a simulation, a performance) are all informed by the "interpretive strategies that are finally not our own but have their source in a publicly available system of intelligibility" (ibid., emphasis in original). Fish also observes that our words and gestures themselves only have meaning within the context of the interpretive strategy at play. This is not to mean that we see only "purely physical data waiting for [our] interpretation" but rather "'see' with the eyes of its interests, its goals, its understood practices, values, and norms, and so to be conferring significance *by* seeing, not after it" (334-335, emphasis in original). This leads Fish to declare that the self is a "social construct whose operations are delimited by the systems of intelligibility that inform it" and that meaning is not created wholly from the individual but has its "source in the interpretive community (or communities) of which it is a function" (335). These interpretive communities hold considerable power. As Carlson notes, "new interpretations are tested against the norms of

various reading communities and are given intersubjective validity by the acceptance of these communities. Readings are thus ultimately authenticated not by the text, but by the community" ("Performance," 13).

Simulation in healthcare education uses both performance and conversation (debriefing) to embed learners into the interpretive community of "healthcare." The path from novice to expert is not simply traversed through skills acquisition and knowledge but also by readjusting how the learners interpret the world around them and their place within it. To be clear, earning admittance into the healthcare interpretive community takes place at all levels of the learners' educational experience – not just through simulation activities. Simulation in healthcare education, however, concentrates the knowledge and skills learned in other educational activities by inserting the learners into a reproduction of their potential worksite whose audiovisual infrastructure renders the intangible tangible (such as non-verbal communication) through video debriefing techniques. The audiovisual equipment may not be part of their clinical environments but are necessary components to relay the performance back to their peers and to their facilitators. This serves as interpretive frame for how to perform in a simulation scenario and how to observe it, as I will discuss in Chapter Three.

Learning how to communicate with their peers (in their own profession and in related health professions) and patients may lead to new ways of presenting themselves: Confidence, clarity of speech, active listening, therapeutic use of silence, medical jargon, etc. are not given qualities of communication for this profession. If they were, we would not have to teach them to the learners. Livestreaming also allows for personal tics and habits, inartful wording, nonverbal gestures, etc. to be captured and presented to the learners during a reflective conversation about their performance in the simulation theater. The simulation performance *and* the feedback are all

informed by the interpretive communities of the participants. Likewise, simulation (the concept) has also been (re)shaped by the interpretive community of healthcare education.

Defining Simulation

Healthcare education (along with other disciplines, such as aviation) has (re)interpreted the very concept of simulation. Simulation, outside of its application in pedagogy, has long held connotations of deceit and falsehood. The first entry in the *Oxford English Dictionary* defines simulation as "the action or practice of simulating, with *intent to deceive*; false pretence [sic], deceitful profession" (emphasis added). The second entry is just as negative, defining simulation as "a false assumption or display, a *surface* resemblance or imitation, of something" (*OED*, emphasis added). These two definitions have examples dating back to the 14th century that convey these negative connotations. The earliest example for the definition used by many simulation centers today provided by the *OED* – "the technique of imitating the behavior of some situation or process (whether economic, military, mechanical, etc.) by means of a suitably analogous situation or apparatus, esp. for the purpose of study or personnel training" – comes from 1947 (ibid.). Unfortunately for simulation pedagogy, however, the earlier definitions of simulation have not been entirely erased. Schechner, for example, explains that "simulation is not the enactment of fiction […] nor is it a hoax […] a convincing simulation is the *pretense* of an appearance (where there is no original) or a replication so perfect it is indistinguishable from acting" (134, emphasis added). This sentiment extends beyond academia. For example, a local newspaper covering the opening of THSSC defined simulation as "imitating reality or, more simply, *faking* it" (Sunderland 2012, emphasis added). However, simulation in healthcare education does not seek to "fake" reality, and simulation producers take great care not to deceive

their learners. Rather, simulation pedagogy seeks to "*resemble* or *mimic* reality" by "*replicating* clinical events and the environments in which they take place" (Jeffries 3, 22, emphasis added). Schechner, to his credit, provides a similar definition, asserting that "with simulation *representation* ends, and *reproduction* takes over" and that, ultimately, simulation is a "*replication* of … itself as another" (Schechner 133, emphases mine). Here, Schechner uses three words that are often used interchangeably – representation, reproduction, and replication – and thus require a closer look to parse between them.

Representation, interestingly, used to mean "acting, simulation, pretence" and its one associated example from 1805 continues the negative connotations associated with simulation ("[… the widower's] grief was pure mummery and representation)" (*OED*). The more common definition is "a depiction or portrayal *of* a person or thing […] an image, a model, a picture" (*OED*, emphasis in original). Schechner notes that "representational art of all kinds is based on the assumption that 'art' and 'life' are not only separate but of different orders of reality: life is primary, art secondary" (131). This distinction assumes that there is an easily distinguishable "origin(al)" of any representation (ibid.). Likewise, theater is often associated with representation. The actor playing Romeo in *Romeo and Juliet* is not actually Romeo but, within the context of the performance, the audience understands him to be Romeo. He represents the character written by William Shakespeare but there is no effort to reproduce an "original Romeo" or even an "original" performance of Romeo.

Representation is not limited to the arts. Mermikides notes that "individual humans who are *presented* in both performance and medicine might also *represent* something beyond themselves, they act as specimens and case studies: an interplay between the specific and the universal, the staged and the real" (1, emphasis in original). She observes how this "reciprocity"

leads to significant changes in how we understand "the human" – how we treat them (medicine) and how we conceptualize that knowledge through performance (ibid.). This suggests that representation is a highly transformable force despite its relegation to secondary status to life itself.

Reproduction (like representation) has usages ranging from law to the arts to the sciences. Within the sciences, reproduction used to refer to the "formation of *new* tissue," a poietic act that is at odds with most of the other definitions captured in the *Oxford English Dictionary* (*OED*, emphasis added). Instead, reproduction usually refers to "the action or process of forming, creating, or bringing into existence *again*; an instance of this" (*OED*, emphasis added). Reproduction has a formative quality but one that does not assume to be *the* original but a copy that is as close to the original as possible. Furthermore, this copy is created outside of itself by a craftsman, an artist, or a machine. Advancing technologies – from the photograph to digital copies – have challenged the once easy distinction between the original and the reproduction.

Schechner uses Colonial Williamsburg as an example of simulation (where representation gives way to reproduction) because it claims to simulate life in eighteenth century Virginia. By reusing actual historical buildings and populating them with "interpreters" with period-appropriate costuming, Colonial Williamsburg hopes that visitors may struggle to find where the historically real ends and the modern performance begins. Of course, the boundaries between "real" and "simulation" are readily apparent wherever you go at Colonial Williamsburg. Non-interpreter participants are not required to dress up in colonial attire. Souvenirs are purchased using credit cards, and tourists use their cell phones to take pictures of their time walking amongst the horse-drawn carriages and manicured wood and brick buildings. And, perhaps

nothing pulls you out of the simulation more than the constant request by an interpreter to see your ticket for activities that take place behind Colonial Williamsburg's paywall.

Simulation often attempts to go beyond surface level representation or reproduction such that those inside the simulation are unable to determine which came first: the reality being cited or the simulation citing reality (Schechner 134). Jean Baudrillard, a noted philosopher with an intense focus on the relationship between reality and simulation, argued that true simulation "threatens the difference between the 'true' and the 'false,' the 'real' and the 'imaginary'" (2). In a passage that seems to anticipate the use of simulated patients in healthcare education, Baudrillard asks:

> is the simulator sick or not, given that he produces "true" symptoms? Objectively one cannot treat him as being either ill or not ill. Psychology and medicine stop at this point, forestalled by the illness' henceforth undiscoverable truth. For if any symptom can be "produced," and can no longer be taken as a fact of nature, then every illness can be considered as simulatable [sic] and simulated, medicine loses its meaning since it only knows how to treat "real" illness according to their objective causes. (ibid.)

Of course, the key difference between the ontology of simulation and simulation pedagogy is the frame within which the latter takes place. Healthcare learners are keenly aware that they are entering a *simulation center* and caring for *simulators* or a *simulated patient*. This is made clear by situating THSSC on a university campus (although many hospitals do have a simulation center on their premises). Yet, the lines are constantly blurring, lulling the learners into the reality created within the frame of the simulation performance while constantly reminding them

that they are, indeed, participating in a simulation performance. For example, THSSC contains actual medical equipment, but everything is affixed with labels that read: "for simulation only." Unlike Colonial Williamsburg, THSSC demands that all participants "look the part" with their strict dress code required for entry into the premises and to ensure their safety. Yet, as will be discussed in Chapter Three, the best intentions of simulation performance producers can still lead to breaks in the realism and immersivity of the simulation experience. Even so, the experience of simulation is such that "phenomenologically, the distinction between real and feigned disappears" (Schechner 134). During debriefing sessions and in post-simulation surveys, healthcare learners and actors performing as simulated patients often remark that they forgot that they were performing in a simulation. They had to remind themselves that their simulated patient was an actor because the performance – and the experience itself – *felt* real. This blurring of the real and the simulated allows Schechner to draw, to the best of his ability within the confines of a textbook, a "mobius strip" whereby "one pretends, then acts, then simulates, then arrives back at real life," asking, "Is this second real life 'real life' and not real life? How can one tell?" (135).

Scott Magelssen suggest that the question is moot because "we 'sim' every day, and in a multiplicity of contexts" (3-4). He uses the activity of getting dressed in the morning as an example of daily "simming" (Magelssen's term borrowed from gaming) (3). He suggests that, when we try out several clothing options in the morning, we engage in an activity that "is a bounded action that bears performative reference to another action, which is or stands to become more legitimate or weighty in another time and context" (Magelssen 4). Magelssen then playfully adjusts Schechner's distinction between "to do" (executing an action to achieve a desired result) and "showing doing" (performing) by adding a new, all-encompassing category,

"simming doing," whereby we "perform the execution of an action, with the express intention to reference, if not necessarily show, the doing in actuality" (ibid., Schechner 28). He acknowledges that simming tends to have an efficacy separate from the actual event. In other words, we may receive different responses from our friends and loved ones to our chosen outfit than what we envisioned when trying them out in front of our bathroom mirror. However, Magelssen argues that the inverse is also true: The actual response to our outfit simulates the poses and responses we rehearsed when trying them on the morning. Magelssen articulates this observation as a collapse of the "doing/performing-doing divide" (ibid.). It should be noted, however, that Magelssen here conflates two terms Schechner uses to "parse existence:" "being, doing, showing doing, and explaining showing doing" (Schechner 4). Performance, writes Schechner, "takes place both in doing and showing doing" (ibid.). Magelssen's decision to conflate "doing" and "showing doing" into "performance" leads him to ask if there are any "kinds of doing that do not simulate something else" and concludes (by evoking the social theory of Judith Butler and Simone de Beauvoir, which will be discussed further in Chapter Five) that "our bodies are, in a manner of speaking, their own living history museums, simulating society's sedimented expectations in the present as we reenact identity for others, simming with every posture, gesture, or utterance" (4). He relates his conclusion to Schechner's notion of "restored behavior," which posits that "all behavior consists of recombining bits of previously behaved behaviors," even if we are not aware of doing so (Schechner 35).

This suggests that simming (and simulation) possesses a tremendous amount of power, which is certainly not lost on Magelssen, who observes that "simmings can purport to help save the world. On the other hand, they can function as intensive propaganda" (3). Magelssen is especially wary of how institutions may use simulation to reify or "reinscribe [sic] the

hegemonic discourses intended by the producers" (183). Here, Magelssen is tacitly referring to the notion of hegemony as defined by Antonio Gramsci, an Italian Marxist who observed that man is ruled not only by force but also by ideas. Gramsci perceived two major sources of power: the civil society, consisting of private institutions such as churches, schools, and clubs; and the political society, or public institutions that include the police, courts, and the government. The ruling class can (and often will) use both the private and public institutions to wield their power, but the power of the private institutions often plays out on a subconscious level. We can often see how the ruling class uses legislation and/or force to assert their authority, but we rarely see or feel how churches, schools, and clubs maintain a "moral, intellectual and cultural consensus" (Kelly 238). In this way, hegemony can be linked to Fish's concept of interpretive communities because they inform *how* we interpret as well as the interpretation itself.

Simulation, suggests Magelssen, can serve as "reification" or "invocation" (13). Reification occurs when simulation is used to "confirm and cement values, dilemmas, political states, or doctrines that already exist in the abstract in a community's perception but that the community feels must continually be […] maintained" (ibid.). Invocation, on the other hand, allows participants to rehearse "for a future reality and advocate for that future reality […] through performance" (ibid.). Magelssen argues that "a defining characteristic of invocational [simulations], then, is that the completed scenario results in the reversals of the status quo, deemed unsatisfying by the participants" (ibid.).

The challenge to the status quo – the ability for simulation to *change* reality – is what leads Schechner to ultimately define simulation as a "*replication* of … itself as another" (133, emphasis added). Here, Schechner seems to draw from several key definitions of replication to distinguish it from representation and reproduction. Biology uses the word "replication" to refer

to "the process by which genetic material or a living organism gives rise to a copy of itself" (*OED*). Unlike reproduction then, where the copy is created by an outside force, replication finds the copy creating new copies of itself. This is similar to Baudrillard's order of simulacra, which eventually finds simulation completely separating itself from the reality that it initially reproduced. The simulacrum maintains an external resemblance to the original reality, but it does not possess the original's inner qualities. This is neatly summarized by philosopher Gilles Deleuze, who draws upon a common notion within Judeo-Christian religions to explain simulacra, writing: "God made man in his image and resemblance. Through sin, however, man lost the resemblance while maintaining the image. We have become simulacra" (257). This replicative ability of simulation – to create a new reality that only bears a surface resemblance to the actual reality – is what concerns (if not terrifies) many of simulation's critics. This will be addressed in the final chapter of this dissertation.

Taken altogether, these definitions suggest that simulation as a modality and approach to learning is not simulation as understood in a philosophical sense. Simulation centers do not and will not replace actual hospitals. If someone at THSSC needed care beyond basic first aid, they would have to travel to an actual hospital to receive treatment. Therefore, simulation pedagogy can best be understood as an amalgamation of representation and reproduction. As Magelssen explains, simulations

> present as much as they *re*present other events or situations. That is, they produce a new narrative or experience, versus simply reproducing an original. Simmings are *likenesses*. As with its linguistic cousin "simile," the simming is a figure meant to strike a comparison with an event but to always maintain the difference in spectator's perception

> between the simulation and that to which it refers. As such, most simmings are both like and not like what they simulate and should not be understood as copies. (9, emphases in original)

The manikins are not copies of human beings but representations of the human body. The actors performing as the simulated patients represent medical maladies through the use of makeup, physicality, and techniques developed through psychological realism, but they are not actually ill themselves. And, as human bodies, they are limited in what they can reproduce (an actor cannot make themselves have a fever, for example). Simulation centers, on the other hand, reproduce actual healthcare environments in an immersive fashion (see Chapter Three). THSSC is not a painting on a wall that represents a hospital room; it reproduces the dimensions, color, texture, and furnishings of an actual clinical environment. Simulation centers also represent the multitude of people who inhabit healthcare settings (see Chapter Four). Sometimes, reproduction and representation are inseparable, such as the healthcare learners wearing profession-appropriate clothing that reproduces the actual uniforms they will wear in professional practice, even though they themselves are representing the behaviors, knowledge, and skillsets of a practicing healthcare provider.

Simulation performances can lead to visceral, emotional impacts. Simulation producers and participants have cried from performing in a simulation or from observing it, even when the simulated patient is represented by a manikin. Knowledge gained from simulation performance is applicable and transferable, and the experiences contribute to the professional and personal identities of the nursing learners by transforming them into nurses. Furthermore, simulation centers reproduce more than surface facsimiles of hospitals. Everything that affects the lives of

actual patients (and actual healthcare providers) is found in simulation: political economy, citizenship, race, ethnicity, gender identity, sexuality, socioeconomic status, and more. Simulation thus reproduces the world we live in and its status quo by being a model *of* reality so that the learners can transform from novices to experts. It reifies healthcare because the learners need to understand the status quo in order to enter their chosen profession. However, I believe that simulation pedagogy achieves its fullest potential when it is used as a model *for* reality. This still requires representation and reproduction, but the aim is different than simply bridging the gap from novice to expert. Now, simulation invokes critical engagement with the current "reality" to improve the ways in which health and care is understood and brought into practice.

Simulation in Healthcare Education as Ritual

Schechner devotes an entire chapter of his introductory textbook on performance studies to the performative qualities found within rituals. The word "ritual" often conjures the esoteric initiation rites of secret societies or religious ceremonies (such as sacraments) and can thus seem incompatible with this dissertation's topic. However, Schechner observes ritualistic qualities in all performance, arguing that performance consists of "ritualized gestures and sounds. Even when we think we're being spontaneous and original, most of what we do and utter has been done and said before – by us even" (52). This is related to his concept of "restored behavior," discussed briefly above, which acknowledges "the process of repetition and the continued awareness of some 'original' behavior, however distant or corrupted by myth or memory, which serves as a kind of grounding for the restoration" (Carlson, *Performance*, 48). Rituals, then, are "collective memories encoded into actions" and pass these memories along to participants by allowing them to "enter a 'second reality,' separate from ordinary life. This reality is where

people can become selves other than their daily lives" (Schechner 52). Here, Schechner's concept of ritual finds strong parallels with simulation in healthcare education.

Rituals occur in a state "betwixt and between" one's "social categories or personal identities" (Schechner 66). Participants are often asked to leave behind their current identities and take on – within the time-space of the ritual – their new identities. This often involves a change of clothing but can include more extreme markings, such as body modification (ibid.). Schechner, following Turner, makes a distinction between rituals that *transform* and rituals that *transport.* Transformation is a permanent change (where ritual occurs in a *liminal* space), whereas in transportation the participant enters into an "experience, is 'moved' or 'touched' (apt metaphors) and is then dropped off about where she or he entered" (Schechner 72). Transportation occurs in a *liminoid* space outside of ritual. Schechner notes that actors operate in a space between "not me … [and] not me" (ibid.). Using simulation on healthcare education as an example, the actor is not the patient, but they are also not *not* the patient. The healthcare learners are not fully trained providers, but they are also not *not* fully trained providers.

This double negative is a useful tool to articulate how simulation in healthcare education occupies a space betwixt and between various states. It is not simulation in the philosophical sense of the word, but it is also not not simulation as such. It is not real (in that there are no real-world consequences for in-simulation mistakes), but it is not not real (in that its participants have impactful experiences). The interactions are not improvised (because there is a pre-written script guiding the actors' interactions), but it is also not not improvisation. It is not transformative (because no one simulation performance "transforms" the novice to an expert), but it is not not transformative (in that simulation experiences can have lasting effects on the participants). That

this list continues demonstrates this liminal/liminoid quality of simulation in healthcare education.

Using both terms – liminal and liminoid – highlights one further betwixt-and-between quality of simulation in healthcare education. I contend that the individual simulation performances are liminoid and transportive. They provide significant experiences for its participants, but they are not enough to transform healthcare learners into healthcare providers. As a collective pedagogical experience, however, simulation in healthcare education is transformative.

Dissertation Plan

The structure of this dissertation is wholly dependent on the topic at hand (simulation in healthcare education) and does not seek to articulate or prescribe a methodology or language for performance studies as a discipline. I shall define the language specific to this study wherever it seems appropriate because I aim to reach a wide audience, including (but not limited to) readers interested in theater studies, performance studies, nursing, medicine, and/or philosophy.

In early 2020, COVID-19 spread rapidly across the globe. Everyone was impacted in some way. Many found themselves forced to work or learn from home using video conferencing software because businesses and schools had to shut their doors as part of the effort to slow the spread of this disease. THSSC cancelled a handful of interprofessional simulations and converted the majority of their scenarios to an online format. The disruption caused by COVID-19 has given this dissertation its overall shape.

Part One engages with the status quo of high-fidelity simulation performance before the pandemic. In Chapter Two, I use Schechner's time-space sequence to describe how a high-

fidelity simulation session is written, produced, performed, observed, and debriefed. The main purpose of this chapter is to help readers understand the entire simulation session so that the remaining chapters can explore various themes related to simulation in healthcare education. This chapter also explains how THSSC recruits and trains actors to perform as simulated patients. I hope that this chapter can serve as an inspiration and guide to anyone interested in developing their own simulated patient programs (especially ones created in collaboration with theater departments). The scenario guide template used to train actors is included as an appendix entry.

Chapter Three explores how simulation in healthcare education reproduces its settings. These reproductions must serve two purposes: to immerse participants in healthcare environments and to help relay the simulation performance to the observers. Simulation in healthcare education, at least as it is produced at THSSC, straddles the line between live and mediatized performance. The learner-performers and simulated patients share time and space with one another during the performance, but the learner-spectators observe the performance on a large screen in a separate debriefing room. This, however, is not an impediment to the learning experience of simulation despite how many within performance studies privilege the co-presence of spectator and performer.

Chapter Four explores how simulation in healthcare education represents the many roles found in clinical spaces. Simulation in healthcare education draws from improvisation and psychological realism to create true-to-life experiences for the healthcare learners. Actors represent patients or the family member of someone who is ill. Learners represent future versions of themselves. This chapter concludes with a brief discussion on the role and importance of the stories being told through simulation.

In Part Two, I address how COVID-19 challenged the status quo. Chapter Five traces how THSSC rapidly pivoted to online learning and how the necessity to persist during the pandemic affected many of the themes discussed in previous chapters, especially regarding immersivity, co-presence, and reproduction. I also share the slow return to THSSC and how the pandemic has asked participants to *dissimulate* COVID-19.

Chapter Six purposefully disrupts the overall flow of the dissertation by pivoting to new (and sometimes challenging) theory. Engaging with such concepts as performativity, phenomenological hermeneutics, and forum theater to address some of the major criticisms of simulation in healthcare education is a small and imperfect way to capture the turbulence we all felt during the pandemic. As we were confronted with multiple crises on top of the pandemic – including systemic racism and income inequality – many saw the "COVID pause" as an opportunity to reflect upon and address these challenges. The pandemic gave those fortunate enough to maintain their health and economic security the time and space to engage with new ideas and fold them into practice. This is a wonderful parallel for simulation pedagogy when it is used as a model *for* reality, and I use this concluding chapter to reflect on how simulation in healthcare education can shape our future healthcare providers and their perception of their role as a care provider so that they can enter the workforce ready to make positive changes in the overall health community.

PART ONE: THE STATUS QUO OF HIGH-FIDELITY SIMULATION PERFORMANCE

The following chapters explore various themes that emerge when simulation in healthcare education is framed as a performance, including immersivity, liveness, perceptual multistability, improvisation, and performativity. I do not intend any negative or derogatory connotation by framing these chapters as "the status quo of high-fidelity simulation performance." Rather, I simply intend to analyze high-fidelity simulation in healthcare education prior to COVID-19, especially since I completed this dissertation amid the pandemic. There is no "status quo" as of this writing; everything is still in flux as we navigate new information about this disease and its variants.

I do not know what high-fidelity simulation in healthcare education will look like after the pandemic concludes. It will be fascinating to see the degree to which immersivity and liveness play a role in the simulation experience. Will we continue to prioritize telehealth (online) performances? Will the reflections discussed in Part Two lead to new changes in simulation performance processes? Only time will tell. In the meantime, it is still valuable to look at simulation performance as it was because it still informs the simulation performances produced during this once-in-a-century crisis.

CHAPTER 2. THE TIME-SPACE SEQUENCE OF A HIGH-FIDELITY SIMULATION SESSION

This chapter uses Richard Schechner's time-space sequence to describe how a simulation session is written, produced, performed, observed, and debriefed. The main purpose of this chapter is to help readers understand an entire simulation session so that the remaining chapters can explore various themes related to the performance and debriefing phases of this modality. When appropriate, I will draw connections between simulation performance and theater performance. This chapter also discusses how THSSC recruits and trains actors to perform as simulated patients, and I hope that this discussion can serve as an inspiration and guide for healthcare educators interested in developing their own simulated patient programs (especially ones created in collaboration with theater departments).

In addition to the time-space sequence, Schechner also explores performance processes by using what he calls the "performance quadrilogue," which represents the dynamic relationship between four categories of people involved in a performance: sourcers, producers, performers, and partakers (250). Schechner defines sourcers as those who "write, research, find, or develop the sources, the raw materials, from which the performance […] is made" (ibid). Performers, of course, perform the actions developed by the sourcers for the partakers, i.e., observers or the audience. Sourcers, performers, and partakers are all linked by producers, which includes directors and technicians. The structure of this quadrilogue varies according to the distribution of roles. For example, Schechner traces the "mainstream theater" quadrilogue as a "Z-path," which begins with one or more sourcers creating material that is realized by producers and performers through workshops and rehearsals before ultimately being presented to partakers (251).

The actual structure of the simulation performance quadrilogue is far more complicated and messier than the mainstream theater format. The roles of sourcer, performer, partaker, and producer are fluid and often change during the performance itself. The learners alternate between being performers and partakers, i.e., between performing in the simulation (as *learner-performers*) and observing from the debriefing room (as *learner-observers*). Simulation technicians oscillate between producing simulations – setting up the room, starting and ending simulation sessions, adjusting vital signs on the manikin, etc. – and performing as the voice of the manikin or, in rare cases, in person as a doctor or some other medical figure. These categories are complicated further because simulation performances are mostly improvised, allowing the performers themselves (the learners and the actors) to serve as co-sourcers of the simulation performance. Furthermore, one could argue that the original patients that received care from the nursing faculty and subject matter experts are also sourcers, as they inspired or informed the scenarios produced at the simulation center. Other chapters in this dissertation explore the fluidity of the simulation performance quadrilogue but, for the purposes of this chapter, I am going to delineate the quadrilogue as follows: Healthcare faculty are sourcers; the simulation staff are the producers; manikins and actors who perform as simulated patients are performers; and the healthcare learners are the partakers because even though they also perform, the simulation performances are produced for their educational benefit[2], i.e., they are the target audience. Additional details about the sourcers, producers, and partakers will be discussed as the chapter progresses, but first we need to set the stage by briefly describing where simulation

[2] It should be acknowledged here that HealthCAST is designed to be a mutually beneficial learning experience for both the healthcare learners *and* the actors performing as the simulated patient. However, simulation scenarios are designed exclusively for the benefit of the healthcare learners; the learning experience for the actors is peripheral, i.e., it is not part of the stated learning objectives of the scenario. The benefits for the actors are largely defined by the type of roles they get to play and by the time delegated towards the beginning of the post-performance debriefing session for actor-to-learner and learner-to-actor feedback. Many simulated/standardized patient programs are *not* designed to be a mutually beneficial experience. The actors are simply hired and trained to complete a job.

performances occur and who performs the role of the patient (or their family member). This chapter uses THSSC as its example and the next chapter will go into more detail about how THSSC strives to immerse participants in the simulation performance.

Setting the Stage: Translational Health Science Simulation Center

The University of Hawai‘i at Mānoa's Translational Health Science Simulation Center (THSSC) opened on January 6, 2011 (Sunderland). This 8,000 square foot facility occupies the entire third floor of Webster Hall, a four-story concrete building located near the center of campus that houses the Nancy Atmospera-Walch School of Nursing. Upon stepping out of the elevator, visitors to THSSC are greeted by a large flat screen monitor that displays a list of major donors. A sliding glass door on the left separates the reception area from the lobby (which now serves as the HealthCAST Program Manager's office). On the right, two sets of doors with large glass windows lead into the simulation center itself. The doors are always locked. Staff and simulation faculty are given grey key fobs that they can use for easy access into the center, whereas visitors can request access by pressing a button on a white call box mounted on the front door. A television monitor to the left of the doors scrolls through a PowerPoint presentation that announces that day's simulation activities.

Once inside, the simulation center is roughly laid out like the capital letter "B" with the main entrance at the bottom of the stem. The main hallway leads to the staff breakroom, five offices, three control rooms (where simulation technicians lead the simulations), two pediatric intensive care units, a large debriefing room with a video wall, and three smaller debriefing rooms. The top curve of the "B," starting in the serif, leads to a labor and delivery suite, an operating room, two intensive care units, two control rooms, three examination rooms, an

apartment, and a ten-bed hospital ward. The lower curve of the "B," starting from the middle of the stem, leads to three research rooms and the restrooms. Newcomers often remark that the simulation center is very clean (actors typically note that "it smells like a hospital"). The hallways are lined with paintings loaned from the Rehabilitation Hospital of the Pacific accompanied by photos and biographies of the artists. The doors leading into the debriefing rooms, simulation theaters, and offices open into the room, which means that the center could be full of activity but would appear empty to someone looking through the glass front doors.

Everyone who enters THSSC must adhere to a strict dress code, a requirement that is typically reserved for elite performance venues, such as the Met. This requirement is not just to instill a sense of professionalism within the learners; it also keeps them safe since there are actual medical equipment at THSSC (such as needles) and possible trip hazards from the various power cords for the manikins. Learners either wear green scrubs or a uniform of black pants and a green polo shirt sporting the School of Nursing logo. Staff members have more flexibility in their wardrobe, but they cannot wear open-toed footwear or shorts. Everyone must wear identification badges that bear their photograph, name, and job title. Like most theatrical venues, food and drink are strictly prohibited; simulation staff store and consume their meals in a breakroom near the entrance of the simulation center. This keeps the manikins safe by removing the possibility of learners spilling liquids on the delicate electronics, which could also lead to insect infestations.

Almost every simulation session at THSSC requires at least three rooms: a simulated hospital room, a debriefing room, and a control room. Cameras and microphones embedded in the ceiling stream the action in the simulated hospital room to one of three identical debriefing rooms where those not participating in the simulation can observe and take notes. The

simulation staff can use any of the four control rooms to adjust the audiovisual equipment as well as operate and voice the manikins that the nursing students care for in many of their simulation scenarios.

THSSC sometimes refers to the rooms where simulation performances take place as the "simulation theater," which highlights the many parallels found between simulation centers and mainstream theaters. The simulated hospital room or the apartment are the stage and, although not common, the presence of microphones and cameras are not unlike multimedia performances (which became vital during the COVID-19 pandemic, a global disruption discussed in detail in the final chapter). The control rooms are akin to the technical booth of a mainstream theater, where the stage manager (a position similar to that of the simulation technician – see Chapter Four) ensures that the lighting, sound, and video cues occur at the right time and in the correct sequence. The break room acts as a "green room," a space where actors can relax and consume food and beverages before (re)entering the stage.

There are, of course, differences between the simulation center and a mainstream theater. As will be discussed later in this chapter, simulation performances are not public. There is no box office selling tickets, no advertising campaign promoting upcoming simulation performances, no stage door for adoring fans to meet the actors after the show. Simulation centers are designed to immerse participants in the simulation performance, which means that there is no "backstage" hidden from view by scenic flats or curtains. The simulated settings are three-dimensional and interactable, i.e., any participant can touch, pick up, and use any of the items in the room. The immersivity of simulation performance requires THSSC to place its spectators into a different room than the performers. These qualities – immersivity, sharing time but not space – are taken up in the next chapter.

Simulating Patients

Healthcare institutions often use manikins to simulate patients. These simulators do not really have a parallel in mainstream theater performances. They are not puppets, per se, in that the simulation technician operating the manikin does not directly manipulate them with their hands (as in a sock puppet), or by using rods or strings (such as a marionette). Manikins are controlled electronically and from a distance, with the manikin in the simulation theater and the simulation technician in a control room. In this way, manikins are more akin to the animatronic characters seen at some amusement park. Yet, manikins tend to have no to little movement capabilities (this is changing; there are now manikins that can track the learners with head and eye movements). The lack of movement capabilities brings manikins closer to Edward Gordon Craig's vision of an "über-marionette," an "inanimate figure" that he hoped would someday replace actors and their tempestuous natures (396). Craig believed that art "arrives only by design" and that actors, by nature of them being human and "at the mercy of the winds of his emotions," were the "exact antithesis" of art (ibid. 393). His über-marionette, however, would not only be more reliable, but it would also "do away with the means by which a debased stage-realism is produced and flourishes. No longer would there be a living figure to confuse us with actuality and art […]" (ibid. 396). It would "not compete with life – rather it would go beyond it" by evoking symbolic images (ibid. 397).

However, manikins – as is the case with most aspects of simulation – are especially designed and used to create a realistic situation for the learners (this is taken up in more detail in Chapter Three). Simulation producers tend to distinguish between manikins by their "fidelity," or the degree to which they resemble an actual human body. Low-fidelity often refers to partial-body simulators designed for a specific task. For example, learners at THSSC practice

intravenous insertion on "Virtual I.V.," which combines a computer program with a small haptic device that looks like a segment of the upper forearm. The device even allows for learners to stretch the skin and feel for a pulse as they prepare for the insertion ("Virtual I.V. Simulator [Discontinued]"). The program itself comes with "42 unique, anatomically accurate, interactive 3-D arm models" that "span human variation in terms of ethnicity, size, age and sex, guaranteeing learners access to a diverse group of patients" (ibid.). The learners receive haptic feedback when they insert the simulated needle into the device and the program responds accordingly: The digital arm represented on the monitor might bleed, bruise, or swell depending on the skill of the learner (ibid.). Medium-fidelity manikins replicate the entire body but have limited capabilities. They are used to develop basic skills, such as patient transfer and bed baths. High fidelity manikins can simulate a wide range of physiological attributes, including blinking and breathing; they can recreate a detectable pulse and audible heart, lung, and bowel sounds; if prepared ahead of time, they can express fluids that look like blood, sweat, and tears; they can simulate seizures, and their pupils dilate when confronted by a bright light. Despite their technological advances, healthcare learners struggle to develop empathetic relationships with manikins because they cannot portray the non-verbal cues and facial expressions so important in communication. To provide even more realism, healthcare institutions since the 1960s have increasingly turned to actors to perform in simulations as a patient or as the patient's family members (Davis, Josephsen, and Macy 158).

There are two primary purposes for incorporating actors into simulation: evaluation and education. *Standardized patients* refer to actors used for objective, evaluative simulations. In these simulations, the actor must standardize their performance so that every learner receives the same experience, thus allowing the faculty to provide objective and fair assessments (Bokken et

al., 2009; Hardee & Casper, 2005; Pascucci et al., 2014). On the surface, the desire for consistency in the standardized patient model appears similar to the consistency found in professional Broadway shows, where it can feel like the time allotted for laughter and applause is highly regulated; the show will continue whether or not the audience is still applauding the end of a showstopping musical number. However, the actors on stage have memorized scripted dialogue and rehearsed blocking (movement on stage) that can occur without the audiences' reaction, which is not the case in simulation performance. The notion that a performance can be "standardized" will be addressed in Chapter Four. *Simulated patients* are charged to "realistically portray a patient role" in a setting where "the immediacy of unscripted, spontaneous interactions" between the actors and the learners teach "effective and empathic communication" (Bokken et al. 81; Pascucci et al. 121). This draws considerably from improvisation, as well as immersive/interactive theater, and will be discussed in further detail in Chapter Four.

Healthcare literature uses "simulated patient" or "standardized patient" to refer to the actor. However, "simulated patient" and "standardized patient" can also be read as the character itself, rather than the performer playing the role. Therefore, I will write out the phrases "actors who perform as simulated patients" and "actors who perform as standardized patients" when referring to actors trained to support those specific modalities. When referring to the general use of actors in simulation performance, regardless of their status as "simulated" or "standardized" patients, I will use the acronym "SP."

All SP programs must consider if they will pay their actors. Some simulation centers, such as the Boston Children's Hospital Simulator Program, can recruit "professional, trained actors," i.e., actors that receive payment for their work (Pascucci et al). Not every program,

however, can afford to pay their actors. Cowperthwait et al. report that some simulation centers average "between $600,000 and $700,00" a year for a SP program, with hourly fees ranging between "$10 per hour to $100 per hour" for performances (2015, 413). These simulation centers turn to volunteers who participate in simulation because they "enjoy the social aspect of being an SP as well as the altruistic aspect of helping to train potential doctors" (Cleland et. al 482). However, simulation centers often consider small gestures of appreciation for the contributions SPs make towards simulation learning, such as an annual reception attended by key faculty and staff members and/or including SPs in holiday festivities (ibid). Several universities have found a middle road between professional and volunteer actors by turning to theater programs to recruit SPs. The need to acknowledge the time and energy provided to the simulation experience by the actors is still important. The University of Texas at Arlington School of Nursing used course fees to pay their standardized patients $15 an hour as well as provide SPs with snacks and drinks (Anderson et. al e62, e64). At the University of Delaware, students can enroll in a three-credit "cross-credited and co-taught" course that prepares students to perform as standardized patients (Cowperthwait et. al, 2014, e43). The University of Hawai'i at Mānoa, however, decided to forge a new path.[3]

HealthCAST

HealthCAST is a collaboration between the Department of Theatre & Dance (T&D) and the School of Nursing and Dental Hygiene (SONDH). Prior to its development, Dr. Lorrie Wong,

[3] In the final months of writing this dissertation, THSSC developed a mechanism to compensate volunteer actors to supplement the simulation performances covered by the graduate assistants connected with HealthCAST. Volunteers will receive a stipend for their time and a one-time training incentive. The most a volunteer can make from a single performance, including the training incentive, is $200. The least is $25 (not including a training incentive).

the Director of THSSC, reached out to Paul Mitri, then chair of T&D, to inquire about using theater students to perform in simulations that emphasized emotional content. Wong invited Mitri and several students, including myself, from a graduate-level acting course to observe a simulation performance. The scenario involved the use of a healthcare learner assuming the role of a simulated patient. The learner performing as the simulated patient was selected only minutes before the performance started and was handed several sheets of paper that listed some of the basic facts and desired behaviors of their character. The learner performing as the simulated patient was clearly uncomfortable in the role. They constantly referred to their script to find answers to even the most innocuous questions, such as: "Did you like living on the mainland?" Despite the elevated stakes inherent to the scenario (an abusive parent), the performance stuttered along, punctuated by giggling and the learner performing as the simulated patient whispering advice to their peers on how to proceed. It was clear to everyone observing that a partnership between SONDH and T&D would be beneficial.

SONDH and T&D moved quickly to create a graduate assistantship, funded by both programs, to serve as a liaison between the two disciplines. The position was also tasked with creating and maintaining training materials, recruiting actors, scheduling and conducting rehearsals, supporting the actors on performance day, and occasionally performing in simulations. I was hired in February 2013 and the first HealthCAST-supported simulation performance took place on March 7, 2013. We were only able to recruit an actor for the morning session, so the afternoon performance had to rely on a manikin. However, this allowed us to better compare performances with an actor performing as a simulated patient and with a manikin: The latter clearly lacked the emotional intensity of the former. The consensus was immediate: HealthCAST was a success.

Demand for HealthCAST actors grew rapidly. New graduate assistant positions were created, and current assistantships within T&D were altered to help meet the demand for actors performing as simulated patients. When HealthCAST first started, T&D only had three graduate assistants all of whom taught three sections of an introductory acting course. As of this writing, there are five graduate assistantships tied to HealthCAST, with T&D and the Provost's Office funding two positions each and SONDH funding one position. The assistants funded by the Provost's Office and T&D each teach two introductory theater courses and devote the remainder of their time to HealthCAST performances. The positions funded by SONDH place a stronger emphasis on HealthCAST with duties focused solely on performing in simulations. They do not teach theater courses, but they can rotate into the T&D graduate assistantship pool after a year in the position. My graduate assistantship was funded by SONDH and later expanded in 2021 into a permanent part-time position.

We have used several approaches to articulate expectations for the graduate assistants who teach courses. First, we tried to calculate expectations by the hour, but this quickly revealed some challenges. While it was not difficult to calculate the hours spent in rehearsal and simulation performances, it was challenging to objectively consider the time needed to memorize the facts of the scenario and to conduct research on the symptoms of the illness. Furthermore, the graduate assistants often repeated scenarios, which meant that they needed less time to prepare, thereby reducing the hours they could count towards meeting their expectations. We then adjusted our expectations to calculate the number of sessions performed by the graduate assistants. The graduate assistants who taught courses needed to perform in six sessions a semester; the graduate assistant who only performed in HealthCAST-supported simulations needed to perform in eighteen sessions a semester. This approach seemed to satisfy a lot of

concerns: It acknowledged the time spent outside of formal rehearsals to prepare for the role, and it did not punish graduate assistants who repeated scenarios throughout their time with HealthCAST. Problems remained, however. The practice of considering one complete performance of a character as a session revealed some inconsistencies. Some graduate assistants were fulfilling their session requirements by performing in emotionally low-stakes scenarios that consisted of only one scene, whereas others bore the brunt of the highly emotional and challenging scenarios in the HealthCAST repertoire. With this new system, short and easy scenarios were given the same weight as lengthy, challenging ones.

Our current approach attempts to quantify the scenarios based on four criteria: the length of the simulation performance, the number of scenes in a scenario, the average amount of time needed to train for the performance, and the emotional intensity of the scenario. Each category is given a score between one and four and the total contributes to the number of points each graduate assistant needs to meet or exceed for the semester. We applied this new system to previous semesters to determine a fair points threshold for the graduate assistants to meet or exceed for each semester. The graduate assistants who teach courses will need to meet or exceed seventy-five points a semester, while the HealthCAST-only position will need to accrue at least two hundred and fifty points a semester. Graduate assistants who exceed their minimum points threshold can receive overtime pay. All positions will need to complete at least five "top-tier" scenarios every academic year comprised of highly emotional situations. Examples include: three scenarios that ask a team of interprofessional learners to guide a family member making end-of-life decisions for their parent, spouse, or child; an unfolding scenario that follows the trajectory of a patient diagnosed with cancer; and multiple scenarios focusing on the devastating effects of depression. We are still finetuning this approach, especially since it was implemented

during the COVID-19 pandemic. However, we believe that it will establish a more equitable articulation of what HealthCAST expects of the graduate assistants tied to it. They can fulfill their minimum points threshold with simpler scenarios, but they will need to perform those scenarios more often than those who meet their requirement with the more challenging simulation performances.

In 2021, we established a new mechanism to compensate all volunteers who perform with HealthCAST. This new mechanism allows us to meaningfully acknowledge the time and talent of all who participate in HealthCAST, but it also allows us to better align our casting with the characters portrayed in the simulation scenarios. I address this further in the final chapter since it is part of how we used the COVID-19 pandemic to improve our practices towards creating a more equitable program.

Simulation Performance as a Time-Space Sequence

Schechner tells us that exploring the "time-space sequence" of a performance helps us to understand how "performances are generated, how they are staged within larger events, and what their long-term effects are" (225). Furthermore, because this understanding allows us to grasp both the short-term and long-term effects on all involved in a performance, we can see how the experience leaves "traces in the bodies of the performers, participants, and spectators," which is, in part, how simulation performance helps to develop the professional identity of the healthcare learners. Schechner encourages us to look at performance processes from the "point of view of actions enacted, of the spaces in which a performance takes place, of the temporal structure of a performance, and as events surrounding and succeeding the performance, both affected by it and affecting it" (ibid.). He does this by proposing a "three-phase sequence" divided into ten

sections: “proto-performance” which includes training, workshop, and rehearsal; “performance” which includes warm-up, public performance, events/contexts sustaining the public performance, and cooldown; and “aftermath,” which includes critical responses, archives, and memories (ibid.). Even though Schechner encourages scholars to use this breakdown as an aid rather than a straitjacket, it does serve as a useful guide.

Proto-Performance: Scenario Development

Proto-performance refers to “a source of impulse that gives rise to a performance; a starting point” (Schechner 226). Schechner cites scripts, paintings, musical scores, legal codes, and ritual requirements (such as singing “Happy Birthday”) as examples of a proto-performance (Schechner 225). It also refers to the “hidden” elements of a performance such as training, rehearsals, and workshops that yield performances but are typically not brought to the awareness of the partakers. One common metaphor describes performance as an iceberg: The audience only sees the tip emerging from the ocean (the performance), but there is an entire body of ice (rehearsals) hidden underneath the surface. Since Schechner lists training, workshops, and rehearsals as separate categories under proto-performance, this section will focus on the development of simulation scenarios.

Scenarios are defined as “a patient case with a main storyline and having the aim of bringing out specific learning outcomes for the participants and observers” (Aliner 10). Nursing faculty – sometimes in conjunction with subject matter experts from the field – often draw from their own experiences to create simulation scenarios (Aliner 12). These experiences are filtered through the various accrediting bodies and commissions that provide guidance in developing

nursing curricula and inform the content and production of simulation performances.[4] Learning objectives serve as the foundation for every simulation scenario and are shared with the learners at the start of every simulation session.

The authors, usually members of the nursing faculty, decide whether the simulation will consist of one scenario or span across multiple scenarios (referred to as "unfolding cases" at THSSC) that compress time to fit within the constraints of the simulation exercise. For the purposes of this dissertation, I will use "scenario" to refer to a specific storyline and "scene" to refer to its individual installments. For example, our child abuse scenario only has one scene, while our oncology scenario has four scenes that cover six months of an oncology patient's battle with lung cancer. No matter the number of scenes, the nursing literature encourages simulation authors to build "the flow of their scenario" by approaching it as they would approach writing a book or a play by crafting a story with a beginning, a middle, and an end (Bambini, 2016, 64; Aschenbrenner et al., 2012, 47). To theater practitioners, this advice echoes the advice offered by Aristotle in his *Poetics*. Aristotle, writing about tragic plays, argued that tragedy is "an imitation of an action that is complete in itself, as a whole of some magnitude," which means it is comprised of a "beginning, middle, and end [..] a well-constructed Plot, therefore, cannot either begin or end at any point one likes" (51). Of course, in simulation, the end of a scenario can only be suggested since the events of the middle are determined by the participants themselves. Healthcare literature acknowledges this and encourages simulation authors to build in enough flexibility as to "dynamically adapt to the participants' actions or requests" (Aliner 11). Nevertheless, simulation authors are encouraged to write at least three possible endings: the

[4] The School of Nursing and Dental Hygiene at the University of Hawai'i at Mānoa is accredited by the Commission on Collegiate Nursing Education and follows the framework provided by the American Association of Colleges of Nursing ("Undergraduate Nursing Program Student Handbook" 1). The Translational Health Science Simulation Center is accredited by the Society for Simulation in Healthcare.

correct ending, an ending where the learners have room for improvement, and an ending where learners excel beyond the stated learning objectives (Bambini, 2016, 66). These three endings can help the nursing faculty prepare for how they might debrief the simulation performance with their learners. Of course, the actual simulation performance itself often falls somewhere between the three endings predicted by the simulation authors because of its improvisatory and interactive nature, two topics taken up in greater detail in upcoming chapters.

To help the nursing faculty write their scenario, THSSC provides authors with a standardized *Simulation Template.* Completed Simulation Templates contain a wealth of information about the scenario, the patient, and the logistical requirements for the performance itself but, by design, these elements are not integrated into a cohesive whole. They are meant to be read quickly and efficiently by the appropriate personnel; the simulation staff want to know where to turn when they are setting up the room, whereas the facilitators want to quickly find the sections detailing the learning objectives or debriefing points for the scenario.

In its initial state, the Simulation Template is a seven-page Word document comprised of tables and check boxes that guides the author(s) through the intricate details necessary to produce a simulation. This includes the location of the scenario, the participants, the educational level of the learners, and any articles, chapters, and other course materials the learners will need to study before the simulation performance. The authors need to articulate three to five learning objectives for their learners. This number helps give the simulation pedagogical focus. The simulation scenario may lack complexity and depth if there are not enough learning objectives. Having too many, however, can make it difficult to assess whether the objectives were met. Learners may also not have enough time to reasonably achieve their learning objectives within the allotted time if there are too many (Aliner 11-12). The performance itself is summarized in a

table that asks the authors to consider desired patient and participant responses to changes in vital signs and/or events. The Simulation Template concludes with a debriefing section. Facilitators are encouraged to articulate the points they wish to cover during their debriefing while leaving space to address what actually takes place in the simulation theater.

Simulation Templates can be written by an individual faculty member, by a committee, or both. They typically evolve as more people weigh in on the proposed scenario. Simulation technicians ask questions related to the actual running of the simulation, such as props needs. If the simulation requires an actor, I am usually brought in towards the end of the writing process to ask questions about the character. These questions, which are informed by my training in realistic acting, can help clarify details about the character that was not considered during the writing of the scenario or to assist me in training the actors. Participating in these sections is often tricky because my theatrical training encourages me to reveal conflict by asking questions regarding the character's objective(s): What does the character want, what stands in their way, and what do they do to overcome that obstacle in pursuit of their goal? These questions are foundational to realistic acting processes (described further in Chapter Four) but they can run counter to the learning objectives established by the nursing faculty. For example, while it would be theatrically interesting for a simulated patient to get violent with the healthcare learners over a diagnosis, it could derail the pedagogical experience if the learning objectives are not focused on de-escalation.

This development process has more in common with commercial screenwriting than playwriting or devising. Playwrights tend to write their scripts as a solo endeavor (Kaufman and McAdams 19). Margaret Edson and Tony Kushner, for example, are the sole playwrights of their plays that engage with health-related topics. Edson's *Wit* focuses on a cancer patient;

Kushner's *Angels in America* centers on several gay characters affected by the HIV/AIDS epidemic. Musicals are a key exception in that several artists may work together to create the *libretto*, comprised of the show's book (the spoken dialogue), the score (the music), and the lyrics. For example, *next to normal*, a musical about opiate addiction and depression, was written by Brian Yorkey (book and lyrics) and Tom Kitt (music). Devising, on the other hand, refers to a process whereby the entire company contributes to the development of a production through "improvisation and collaborative group work" (ibid. 20). Neither playwriting nor devising quite captures the simulation scenario writing process, which may begin with one author but always evolves with more contributors getting added along the way. In this manner, it may be more accurate to compare this process to that of a writers' room for a television show or a major studio movie. The difference here is that television episodes and films achieve completion – they are eventually filmed, edited, and released. Simulation scenarios can be "finalized" and produced as a performance, but they are revisited every year for a "validation" process. Here, various parties review the scenario to ensure that all the information is accurate and up to date. It also allows for the simulation authors to address any questions, concerns, or changes that arose during the performance(s) and update the Simulation Template. In 2020, I was folded into the validation process to ensure that the HealthCAST Scenario Guides were aligned with the Simulation Template.

The finalized Simulation Template is a highly technical document, replete with medical jargon and abbreviations. As an all-encompassing document, it also contains information that is irrelevant to an actor performing as the simulated patient, such as the textbook chapters assigned to the healthcare learners or their character's vital signs. The actors needed a more accessible tool to prepare for the role of simulated patient. When HealthCAST started in 2013, a simulation

technician would extract important information from the Simulation Template and put it into a table divided into five "determinants of health:" physiology, psychology, social environment, physical environment, and access to care. The completed table provided the actors with relevant information about their characters free of medical jargon and abbreviations, but the format quickly proved inefficient. Some of the columns had more information than others, requiring several pages for a single determinant of health that left the rest of the paper blank. We needed to create a more user-friendly tool to prepare the actors, so I developed script-like booklets, now called Scenario Guides, that provided us with the flexibility to structure the guide to suit the needs of the simulation scenario. The Scenario Guides have gone through several iterations, from minor aesthetic adjustments to major structural changes that standardized the layout of the booklets while still providing flexibility to efficiently organize information. As of October 2021, I am working on a major overhaul of the Scenario Guides. These new guides retain many of the features listed below but they drop the booklet format in favor of a digital document that can use hyperlinks to easily locate relevant sections and to direct actors to outside resources such as videos and articles. As they are not yet fully approved before submitting this dissertation, I am not including the new format in the appendix (as I did with the booklet-style guides).

The booklets begin by informing the actors of the major conventions of simulation at THSSC. Background information on the character is provided, followed by a brief statement on the type of learner they will be working with during the simulation. Each scene begins by listing the learning objectives for the healthcare learners. The "shift report" to the learners, i.e., the summary about the patient that the facilitator reads to the learners before they enter the simulation theater, is included. This informs the actor on what the learners know about their

character so that there is continuity during the performance. If appropriate, details regarding makeup and wardrobe are listed.

The core of each scene is the framework, which summarizes the ideal actions and behaviors of the healthcare learners and the actors performing as the simulated patients. Often, the Simulation Template conveys the desired actions and behaviors through dialogue written by the nursing faculty. I always convert this dialogue into declarative statements in the Scenario Guides for two reasons. First, the performances themselves are largely improvised. The learners do not memorize dialogue; therefore, the actors should not try to awkwardly attempt to recite pre-written dialogue into an otherwise spontaneous conversation. Second, our actors' improvisations yield far more organic and natural dialogue than what the faculty tend to write in the Simulation Templates.

The use of a framework in the Scenario Guides finds a parallel in *commedia dell'arte*, an Italian comedic form whose performances included acrobatics, mask work, and verbal and physical combat. *Commedia* performers relied on a "*scenario*, a brief outline of each scene and of what each actor was expected to do in it" (Greenwald, Schultz, and Pomo 464, emphasis in original). The scenarios, comprised of plots familiar to both the performers and spectators, were written by the company manager and shared with the cast prior to the performance (ibid.). Of course, simulation performance in healthcare education lacks the comedic and acrobatic bent of *commedia* performances but Gretchen Case (a medical humanities professor) and Daniel Brauner (a medical professor) argue that such humor could be useful in healthcare education. A commedia workshop, they argue, "could have serious impact by asking students to consider the status of the doctor [a key stock character in *commedia* plays often described as "pedantic" (ibid., Case and Brauner 161)] and the importance of status relationships in the clinical

environment" (Case and Brauner 162). They also argue that the theatrical vocabulary provided to them in such a workshop would impart necessary clinical skills, such as "deliberate movement, mindful use of space, voice modulation and projection, and appropriate eye contact" (ibid.).

THSSC regularly hosts interprofessional simulation sessions that bring together learners from medicine, social work, spiritual care, nursing, and, in one scenario, dietetics. Several of these interprofessional simulation sessions center on scenarios with learning objectives requiring the healthcare team to guide a patient's family member (performed by an actor) in making an end-of-life decision for their loved one. Because of the highly emotional nature of these simulation sessions, their respective Scenario Guides use a slightly different format for the framework section. The interprofessional team learns an acronym – SPIKES (Setting, Perception, Invitation, Knowledge, Empathy, Summary or Strategize) – to help them deliver bad news in an organized and empathetic manner (Kaplan 514-515). We used the acronym to develop an "emotional continuum" that guides the actors in their responses to the interprofessional team should they follow or stray from SPIKES. Each step of the SPIKES model is summarized, and two examples are given: one where SPIKES is followed and one where SPIKES is not followed. Each example summarizes the most extreme behavior the actors may perform in response to the interprofessional team. However, it is made clear to the actors that the actual performance will exist somewhere in the middle of the examples provided. This approach is still being fine-tuned, and we are considering a similar model for other highly emotional scenarios.

Some Scenario Guides have a section that lists important details about the scenario that does not fit within the framework itself. Some Scenario Guides include a section with advice to

the actor learned from previous performances. All Scenario Guides conclude with instructions on how to debrief with the healthcare learners appropriately and effectively. An example of the Scenario Guide is provided in the appendix.

Training

Schechner divides training into two categories: informal and formal. Informal training provides skills and knowledge "over time by absorbing what is going on. Mistakes are corrected as part of daily life" (228). He includes examples of children playing, familial norms, and learning how to speak as examples of informal training. Formal knowledge, on the other hand, tends to have a more systematic approach with "progression through different 'grades' of knowledge and the division of knowledge into 'subjects'" (ibid.). Of course, training provided by universities falls under this category, but the boundaries between formal and informal training are slippery at best. Informal training can work together with formal training. Schechner cites the performing arts as an example of training that can be formalized in an academic setting but can also be gained informally over time. "Many persons who have never taken a class are excellent social dancers," observes Schechner (ibid.).

Simulation is only one of several modalities used to train learners for clinical practice. Of course, healthcare learners complete typical collegiate coursework such as attending lectures, reading assigned texts, and writing papers. Healthcare learners also participate in clinicals where they shadow practicing nurses at a clinic site organized by the school. Learners at the beginning of the healthcare program simply observe staff nurses but, as they approach graduation, they will care for a small patient load under the supervision of the staff nurse. Throughout their clinical experience, preceptors (experienced and licensed nurses employed at the clinical site) observe,

critique, and evaluate learners on their performance. The School of Nursing at the University of Hawai‘i at Mānoa provides their learners with a handbook that lists nine possible behaviors that could result in a learner’s immediate dismissal from the program. The list is not meant to be complete, but some notable examples include “using words or gestures that suggest disapproval of the patient,” “coercive actions to get the patient to cooperate,” and “using a communication style that confronts or attacks the patient,” all behaviors that can be identified and addressed safely in simulation (SONDH Student Handbook 23). Clinicals and simulation occur simultaneously. A feedback loop occurs as simulation performances inform clinical performances and vice versa.

Simulated patients are not always formally trained actors (Smith, Gephardt, and Nestel 362). In fact, some SP educators find it beneficial to employ people who do not identify as actors or have formal training because it can help keep costs down (D’Ardis 1137). However, some SP programs purposefully seek out trained actors because they greatly enhance the realism of a simulation performance (Smith, Gephardt, and Nestel 362). Some SP educators look towards well-known theater artists to bolster their understanding of performance as well as their efforts to train actors performing as simulated patients (ibid.).

HealthCAST, by virtue of its collaboration with T&D, primarily uses graduate students for its simulated patients. These students likely completed their undergraduate education at a different institution, which means that the theater students who perform with HealthCAST have remarkably different backgrounds. The Department of Theatre & Dance at the University of Hawai'i at Mānoa offers courses related to Euro-American, Asian, and Hawaiian theater traditions. Because it does not follow the conservatory model, students are free to choose classes from an extensive menu of courses such as scene study, script analysis, improvisation, dialects,

stage combat, Shakespeare, period styles, and devised theater. Furthermore, the department offers courses related to upcoming Asian theater productions, which typically rotate between Chinese theater (*jingju*), Japanese theater *(kyogen*, *kabuki*), and Indonesian theater (*wayang listrik*, *randai*). Within the past few years, the department has produced several shows entirely in *'olelo Hawai'i*. Unlike the healthcare learners – who all complete the same courses, simulations, and clinical experiences as a cohort – theater students have unique and varied training and are encouraged to apply relevant skillsets to their simulated patient performances. This will be discussed further in Chapter Four.

Workshops and Rehearsals

Workshops, as defined by Schechner, are the "research phase of the performance process" and can be used to develop processes that will be used in rehearsal, to draw from the participants material that can supplement and support the source (i.e., script), or as a means of acquiring certain skills and techniques (233). Although workshops share similarities with rehearsals, Schechner argues that workshops are a way of "breaking down, digging deep, and opening up. Resources are identified and explored […] possibilities abound," while rehearsals "build on, and fill in, the foundations laid down in training and the new materials uncovered and explored in workshops" (236). A similar practice occurs whenever THSSC "pilots" a new simulation scenario. The simulation session proceeds as normal but, by qualifying the session as a "pilot," the participants and observers tacitly agree to forgive any issues that may arise during the simulation activity. If issues emerge, they are then identified and discussed, changes to the scenario are made, and eventually the simulation session loses the "pilot" qualifier.

Schechner bestows significant power to workshops, arguing that successful workshops, like rituals, change participants in both minor and fundamental ways because "participants must do the hard work of not only mastering new skills (training) but opening themselves up to others and to new ideas and practices" (236). There are plenty of examples of workshops at other simulation centers across the globe. In Sweden, nursing students were required to attend a one-day workshop to practice conflict management in performance inspired by Augusto Boal's forum theater (Arveklev 211).[5] The University of Delaware uses improvisation workshops to prepare students enrolled in a cross-listed, co-taught course on how to perform as a standardized patient (Cowperthwait, Saylor, and Schell 43). Likewise, Salisbury University trains its SPs with a yearly three-day workshop that includes lectures and movie screenings (Jarosinski and Webster 540).

THSSC does not conduct workshops, as defined by Schechner, for the learners in the School of Nursing and Dental Hygiene. However, THSSC regularly hosts healthcare professionals from across the Pacific – including Japan, China, Guam, and American Samoa – who are interested in developing a new simulation center or strengthening the practice of current pedagogues. In the lead up to the now postponed 2020 Tokyo Olympics, visitors to THSSC from the Japan Nurses Association requested the opportunity to work with actors performing as simulated patients so that they could practice communicating with non-Japanese patients. THSSC developed scenarios with characters that challenged Japanese social norms such as engaging physical touch and maintaining direct eye contact while speaking quickly and with a thick regional American accent.

[5] Forum theater has been used by several simulation centers, albeit fundamentally misapplied. Boal's work, and how it relates to simulation, will be discussed further in Chapter Five.

Rehearsal

"The goal of rehearsing," observes Schechner, "is to bring the finished product into harmony with the process that produced it" (238). Simulation sessions are part of the process that harmonizes the finished product (new licensed healthcare providers) with its origins (experienced licensed healthcare providers). However, simulation sessions blur the line between rehearsal and performance. Traditional theater rehearsals rely on "repetition and revision" to create the final production (Schechner 236). Performers and producers work on the same material until it is ready (or they run out of time) to present it to an audience. Healthcare learners, on the other hand, rarely repeat a simulation scenario. Their rehearsals are like theatrical performances in that they both share an ephemeral quality – they only have one chance to experience it. In this way, simulation performance comes closer to performance art or performance theater. Chris Burden, for example, did not rehearse his famous piece, *Shoot*; his friend had one chance to nick his arm with a .22 rifle (Carlson, *Performance*, 122).

For now, this section will describe how THSSC trains actors recruited to perform as simulated patients. Simulation performances are largely improvised but bounded by the scenario's learning objectives. Actors learn how to cue and guide the learners towards meeting their learning objectives, but no amount of preparation can fully predict how the learners will respond during the simulation performance, especially since the learners are never part of the rehearsal process. For this reason, HealthCAST has long approached rehearsals as opportunities to strategize possible responses to the learners' interventions. Rehearsals for simulation performances follow a similar trajectory.

New HealthCAST actors first sign a packet of agreements that includes the confidentiality statement; acknowledgments that their performances will be observed as well as

video- and audio-recorded; assurances that the video and audio recordings will only be used for educational purposes; and a risk release form. The packet also has a checklist that standardizes the orientation and ensures that the actor learns the mission statement of THSSC, its dress code, and how to access online resources. If possible, a tour is provided, and introductions are made with simulation staff encountered during the walkthrough. There is a point during the tour where I give every actor, regardless of skill or experience, the same piece of advice: Do not play a character. Stage actors are trained to "fill the space," i.e., to project their voice and enlarge their physical gestures so that the spectators in the back of the house can clearly hear and see them. In simulation, however, the actor performing as the simulated patient is performing for an audience that is also, simultaneously, their scene partner. Anything "big" or "theatrical" would read false and the entire illusion would crumble. I advise actors to play themselves but modified based on the given circumstances provided in the Scenario Guide. This is essentially the same advice given to the healthcare learners when they go into simulation. Some simulation practitioners refer to this as a "fidelity contract," where the learners must act as if they were caring for an actual patient while forgiving any intrusions that threaten the realism of the performance.

The first rehearsal typically approaches the scenario in broad strokes and functions similarly to the table work step often used in mainstream theaters to begin their rehearsal processes. During table work, the director, actors, and (sometimes) key members of the production team gather around a table to read the script aloud and discuss its themes, settings, characters, relationships, and other aspects to ensure that everyone shares an understanding of the story they will tell in their production. Likewise, the first rehearsal of a HealthCAST-supported scenario is used to discuss the learning objectives, the provided details about the patient they will portray, the desired tone of the scenario, and the overall flow of each scene. I

also inform the actors about the type of learners they will be working with in the simulation. This helps them anticipate the types of behavior they can expect in the simulation performance. For example, learners near the beginning of their educational journey often struggle with emotional content; they are far more comfortable with task-based skills. The actors and I may discuss strategies on how they can guide the learners into engaging with content that challenges their comfort zone.

The best way to prepare for the spontaneous interactions with the learners is to know the character backwards and forwards; no detail is too small or irrelevant. This means that the second and third rehearsals can be a little more freewheeling, but the goal is always the same: to build upon the information provided by the simulation authors. Some actors start this process before the formal rehearsal by researching details about their character and the illness they will portray. I have had actors arrive to rehearsals with notebooks full of additional facts and handwritten maps of O‘ahu to better understand the island’s communities and with bags full of clothes to discuss costuming options. During rehearsals, we discuss the character’s economic status, their religious beliefs, their familial and social relationships, their jobs, and how their illness intersects and affects every other feature of their life. These additional details do not alter the information provided by the scenario authors, but they can vary slightly from actor to actor because each performer brings their own unique experience and understanding to the role. However, we never contradict or change the medical details provided by the scenario authors.

Up to this point, rehearsals are primarily discussions. Sometimes, a discussion of facts turns into a performance, i.e., my questions to the actors become questions to the simulated patient. These instances are rarely preplanned; the slip from conversation to performance occurs without a frame. One second, I am speaking to the actor, in the next I am speaking to a patient,

but the transition is evident to everyone involved. This is very different than mainstream projects I have worked on, where the line between the actor and the character is very clear. We establish when we are running the scene ("Let's pick it up on page nine.") and when the rehearsal of the scene has paused ("Great, let's hold and discuss."). I suspect that the scripted nature of mainstream theater helps clarify these boundaries.

These moments of transition prepare us for the final rehearsal where we "simulate the simulation." For this rehearsal, I take on the role of the healthcare learner and interact with the actor as if it were the actual simulation performance. If possible, I reserve the actual room that will be used for the simulation performance. If that is not an option, we will continue rehearsals in the lobby. After each simulated simulation, I offer feedback to the actors on their performance, usually regarding how they responded to my performance as a healthcare learner. We may repeat the simulated simulation to allow the actor to synthesize the feedback or so that they can interact with different personae. For example, I may portray an aloof healthcare learner so that the actor can practice their responses and receive feedback on their choices.

Sometimes the simulation technicians are involved with this final rehearsal. One simulation scenario involves the actor as the parent of a toddler portrayed by a manikin and voiced by a simulation technician. We always have at least one rehearsal, usually the one set aside to simulate the simulation, where the actor and the simulation technician can build rapport with one another and strategize how they will support one another during the performance.

Performance

Simulation day begins early, especially for those in theater. At least one simulation technician arrives to THSSC around 7:15 a.m. to turn on the computers and the manikins, check to ensure

that all the necessary props and equipment are in place, and complete a final review of the simulation template. The facilitator may also arrive early to double-check that everything is in place and to review the order of operations for the day. Learners usually arrive to THSSC as a class led by their facilitator, who is often engaged in conversation with several of their learners. Sometimes, learners drop their coffee mugs off at the breakroom on their way to the debriefing room to respect the rules prohibiting food and beverages. Once in the debriefing room, the simulation technician assigned to the class will provide basic instructions about that day's simulation. If the learners are working with an actor, the simulation technician will read aloud the guidelines for interacting with them: There will be no invasive procedures, do not have multiple conversations taking place at the same time, and remember that the actors will always remain in character when you are in the room with them.

Actors arrive around their call time and almost always duck into the breakroom to grab a cup of coffee or nibble on a snack. The actors and I usually alternate between casual conversation and simulation preparation, going over facts of the case and discussing potential strategies for the performance. Most of the time, the actors remain in the breakroom until they are summoned by the simulation technician. If they need to put on any special makeup or costuming, the actors will go to the restroom or the apartment's simulated bathroom to complete those tasks.

Warm-Up

Schechner writes that every performance is preceded by a warm-up (240). He lists dozens of examples of warmups, from baseball players swinging their bats before stepping up to the plate to surgeons decontaminating themselves and their instruments before beginning a surgery. For

Schechner, warm-ups help performers bridge the gap between their ordinary life and the performance (ibid.). This step in Schechner's time-space sequence is not as distinct in simulation performance, but this does not mean that warm-ups do not occur.

Learners arrive to the simulation already wearing their nursing uniforms, i.e., already in character, but they never immediately jump into a simulation performance. There is always a period before the performance begins, called the "prebrief," where the facilitators and simulation technicians work to create and establish a safe and engaging learning environment for the learners. Ruth Fanning and David Gaba argue that it is the facilitator's "ethical duty […] to protect participants from experiences that might seriously damage their sense of self-worth" (116). Steps to achieve this include introductions of the facilitators and their roles during the simulation session, of the learning objectives, and of the expectations for the performance and debriefing sessions. The facilitators remind learners that video debriefing may be used, and that the simulation performance is designed to provide experiences where they can apply their skills and learn from their mistakes in a safe environment. Facilitators also remind learners to agree to a "fiction contract" wherein they must suspend their disbelief and "act [as] if everything was real" (The Center for Medical Simulation 6). I will address a challenge to this concept in Chapter Five.

Some nursing facilitators use this time to bring their learners to the simulation theater so that they can see where certain equipment is located, how to use the telephone, and to give them some additional time to ask any questions about the props, manikins, and working with the actors. For these courses, the actors are invited to wait in the adjacent control room so that they can get a glimpse of who they will be working with. Furthermore, the questions asked by the learners give the actors a sense of what they may do during the performance, providing them

with some time to adjust their strategies. However, Janice Palaganas et al. note that many educators worry that orienting learners to the technical aspects of the simulation and the simulators diminishes the learners' ability to buy into the fictional contract experience but that this orientation can be useful to let learners know how to interact with the manikin's features, such as reading their blood pressure (80). For the other scenarios, the actors either wait in a designated area (breakroom, apartment, or lobby) until they are led to the simulation theater by the simulation technician.

Actors often consider "the moment before" of the scene they are about to perform, i.e., the events leading up to their character's onstage entrance. For most plays, characters have existed and have had lives long before the play begins and, if they survive the events of the story, will continue to live long after the play ends. For our highly emotional scenarios, such as end-of-life decision-making, the actors are given the option to prepare alone in one of the exam rooms or in the lobby. The actors employ various strategies to prepare, including listening to music, watching emotional videos, and silent meditation. Part of my role on simulation day is to provide the actors with an approximate time to the simulation performance. I remember one instance of walking into the apartment – here used as a green room – and found the actors sitting silently in the dim light, preparing to receive bad news. I was there to keep them aware of the schedule, but the heaviness in the atmosphere told me that my presence was not one of support, it was an intrusion. In one particularly notable occasion, the actors for an interprofessional simulation were waiting in the breakroom between scenes. One actor shared an emotional video that rarely failed to bring tears to their eyes. This started a chain of video exchanges, with each actor bringing up emotional videos on their phones and inviting the other actors to watch over their shoulder. Eventually, the actors started to share stories of personal loss and grief, further

intensifying their crying. At this point, I stepped out of the room and begged the simulation staff to refrain from entering the breakroom unless they were ready to bring the actor in to perform their scene. These experiences of heaviness led one actor to later write in their MFA thesis that HealthCAST "was not comfortable for any of us involved … the work sometimes gives occasion to significant emotional expression. It is intense and rich, not light-hearted or comfortable" (Wong et al. 5). Sometimes, actors can "turn on" the emotional content without this level of intense preparation. I have watched several actors transition from laughing with their peers in the breakroom to a distraught parent in the fifteen-second walk to the simulation theater. Every actor has their own method to prepare for a scene, and it is our responsibility as producers to respect their needs.

We always want the learners to enter the simulation theater and encounter a fully realized patient living their "moment before." To ensure this quality, the simulation technician pages into the room and informs the actor that the cameras will be turned on. A simple thumbs up from the actor or a more classically theatrical "thank you, camera" permits the technician to start recording the performance and to begin streaming it to the debriefing room. As this is happening, the facilitator is often out in the hallway with the learners who will be performing in the simulation. The facilitator will read aloud the shift report from the simulation template, which includes very basic details about the patient and what brings them to the clinic. The technician will then notify the facilitator that learners can enter the room. With a knock on the door, the learners enter, and the performance begins.

Public Performance

From the examples provided by Schechner, it is abundantly clear that simulation performances distinguish themselves from most traditional performances in that they are not public. Simulation sessions are not publicly advertised. The public cannot purchase tickets or even walk through the doors uninvited. Simulation performances are exclusive and private, which is rare but not altogether unheard of in theater. Polish director Jerzy Grotowski, for example, highly restricted access to his work (Kolankiewicz). However, simulation performances are closely guarded by multiple agreements signed by every participant and observer to ensure confidentiality. Video recordings never leave the third floor of Webster Hall and are never uploaded to the internet. However, simulation performances still fit within this time-space sequence using Schechner's simple definition of this step, which is "whatever takes place between a marked beginning and a marked end" (240).

Most simulation sessions are designed so that all healthcare learners participate in the performance. For example, a class may contain twelve learners who will participate in a scenario with four scenes. The facilitator will choose three learners (or allow for volunteers) to perform in the first scene. The remaining nine learners observe from the debriefing room by watching a livestream of the performance on a large-screen television. They also note key details about the scenario on the whiteboard as the performance progresses. The facilitator often walks the learners performing in the simulation to the door of the simulation theater to address any final questions or concerns. When they feel ready for the simulation to begin, the facilitator will advise the students to wait thirty seconds so that they can join the technician in a nearby control room before the performance begins.

Simulation performances almost always begin with a knock at the door and the learners introducing themselves as (licensed and professional) nurses. I once heard the Director of THSSC explain to a new facilitator that nursing learners engage with simulation as students during their first semester. They enter the simulation theater as themselves in the present. A preceptor checks and verifies all their decisions and actions. However, around three quarters of the way into the first semester, their role changes and they engage in simulation as nurses, i.e., a version of themselves that is fully licensed and practicing in an actual clinic.

From here, simulation performances flow according to the unique alchemy of learner and simulated patient personalities, the learning objectives of the scenario, and the emotional stakes of the case. The given circumstances and learning objectives provide guidance to the actors performing as the simulated patient, and they can cue learners appropriately if the performance needs realignment. For example, an errant cough to clear one's throat may inadvertently raise a red flag for the healthcare learners who actually need to assess the patient's mental health. The actor performing as the simulated patient can redirect the learners by waving away their concerns and bringing up a relevant symptom.

The facilitator observes the simulation performance on a computer screen in one of the control rooms. They can use the audiovisual software to "bookmark" significant moments to use in the debriefing session. Another computer monitor allows them to observe the learners that remained in the debriefing room. The same camera angle is also displayed to the learners in the debriefing room on a "confidence monitor" next to the main screen livestreaming the simulation performance.

Some scenarios require audio cues to progress the performance. Learners may briefly "drop character" to ask the simulation technicians for vital signs or other symptoms that they

cannot assess on the manikin or actor, such as lung sounds or body temperature. If the vital sign is necessary to advance the scenario or contributes to the learners' understanding of the illness, then the technician will respond by paging into the simulation theater. The technician will not respond if the vital sign is normal. Actors performing as the simulated patients ignore these brief breaks in the performance.

Most scenarios conclude without warning. The simulation technicians time the simulation performances and alert the facilitators when they approach or exceed fifteen minutes. Once the facilitator grants the simulation technician permission to end the performance, the technician waits for an appropriate gap in the conversation to interject and inform the participants that they can return to the debriefing room. The actors playing simulated patients always remain in character, which sometimes leads to awkward moments of fidelity breaking. Learners, especially in emotionally fraught simulations, often drop character immediately by sighing or cheering, leaving the actor performing as the simulated patient to either feign confusion and surprise or ignore the learners altogether. After a moment of awkwardness, learners usually recompose themselves to conclude their conversation with the actor performing as the simulated patient and exit the room. The simulation technician waits until the learners have left the simulation theater before they turn off the cameras. They then notify the actor performing as the simulated patient that they can drop character and prepare for the next step in the simulation session, which is either preparing for the next scene or debriefing with the learners.

Cooldown and Aftermath (Debriefing)

Schechner writes that the immediate period after a performance, which he calls the "cooldown," is an "often overlooked but extremely interesting and important phase" of the performance process (245). He attributes this oversight to the largely casual nature of the cooldown phase. For example, actors have varying needs for getting out of character. Some can easily "drop character," whereas others need a significant period of time to "reawaken the ordinary self" (ibid.).[6] Likewise, Schechner observes that spectators may engage in conversation with one another to "evaluate what they've just experienced" and to "resume authority over their own bodies and time" because they just sat still for several hours in the dark (245-246). These conversations contribute to the performance's aftermath where critical responses, archival artifacts, and memories can extend its life long after the performance has concluded.

Simulation performances are always followed by a debriefing session. Healthcare literature firmly asserts that debriefing (a term Schechner attributes to intelligence and military operations[7]) is a vital step in the simulation experience, describing it as "a core element of the experiential learning process," "the heart of learning in simulation-based education in healthcare," "essential," and "crucial" (Schechner 245, Cheng et al. "Faculty Development" 419; Palaganas et al. 78, Eppich and Cheng "PEARLS" 106, The Center for Medical Simulation 2).

Debriefing is a structured conversation amongst and between learners and facilitators that allows for reflection, analysis, clarification, and exploration of what took place during the simulation performance. Positive behaviors are acknowledged and areas for improvement

[6] For example, actor Ben Platt made headlines when his fans took to social media to complain that he did not greet them at the stage door after his Tony-award winning performances in *Dear Evan Hansen*. Platt explained that he needed time every night to heal and to practice "self-care" so that he could give "it [his] all" night after night (Lawrence).

[7] Schechner 245. Healthcare literature acknowledges debriefing's military origins and its role in "defusing" and "processing traumatic events with the aim of reducing psychological damage" (Fanning and Gaba 116).

identified so that learners can synthesize the simulation performance and subsequent feedback into their future practice with actual patients (or, if the learners are currently in a degree-program, in future simulations) (Eppich and Cheng 106; The Center for Medical Simulation 2; Palaganas et al. 78). During a debriefing session, facilitators may close "performance gaps" by comparing the learners' simulation performances against the desired performances stated in the learning objectives (Cheng et al., "PEARLS" 106; The Center for Medical Simulation 2). Likewise, facilitators may also highlight exceptional performance because, regardless of what took place in the simulation theater, "skilled debriefers give participants the benefit of the doubt (i.e., assume the best intentions) and regard mistakes and good performance as a mystery to be analyzed rather than a crime to be punished or success to simply be lauded" (The Center for Medical Research 2). Debriefing, therefore, situates itself between a theater director providing notes after a rehearsal (simulation performances are rehearsals for actual clinical performances) and a post-mortem (an activity used by some theater companies after a show closes where everyone involved with the production can share what they thought went well and what they could improve upon).

There are several strategies for organizing and leading a debriefing session. THSSC uses a combination of the "Debriefing Assessment for Simulation in Healthcare" (DASH) by Harvard University's Center for Medical Simulation and the "Promoting Excellence and Reflective Learning in Simulation" (PEARLS) approach developed by Dr. Adam Cheng and his team. PEARLS offers facilitators guidance on how to structure and lead a debriefing process whereas DASH, as its name suggests, was designed to evaluate the effectiveness of a facilitator's debriefing efforts. However, by articulating best practices, DASH also serves as a useful debriefing guide. Even though DASH and PEARLS offer slightly different strategies towards

organizing a debriefing session, they follow a similar trajectory (as well as Schechner's cooldown and aftermath stages), and both models apply regardless of whether an actor or a manikin simulated the patient. They both recommend an initial "reactions" phase where learners can "blow off steam." PEARLS also advocates for a description phase where key moments of the simulation are highlighted before starting with the more intensive analysis phase. The debriefing session concludes with a summary phase (Center for Medical Simulation 10, Eppich and Cheng 108).

The Reactions Phase and Actor-Learner Feedback

The Reactions Phase unofficially begins as the learners share their initial reactions with one another in the walk from the simulation theater to the debriefing room. In HealthCAST-supported scenarios, the actors share their initial thoughts with me so that I can help them articulate their feedback in a productive manner. Actors performing as simulated patients are usually excluded from the Reactions Phase to give learners an opportunity to openly discuss their experience without worrying about offending the actor.

Once the facilitator believes the class is ready, the actor is invited to join the debriefing session. THSSC developed a series of questions to encourage interdisciplinary feedback. Facilitators ask actors "What behaviors during this encounter made you feel cared about as a person and a patient? How can the team or student improve?" To help actors answer this question, the HealthCAST Scenario Guides include a debriefing guide with three categories for the actors to consider during the simulation performance: learner efforts towards building rapport, perceived empathy, and effective verbal and nonverbal communication. Each category contains a list of qualities that the actor can use to provide feedback, and the language used in the

debriefing guide aligns with vocabulary familiar to the healthcare learners. This debriefing guide is included in the Scenario Guide example in the appendix.

After the actor has provided feedback, the facilitator shifts the conversation to the actor's performance. Learners are invited to reflect on how the actor made them feel and to comment on the realism of the performance (especially regarding the portrayal of the medical condition). Healthcare learners do not receive a list of categories and qualities to refer to when providing their feedback, which probably explains why they almost always compliment the actor on the performance with no critical feedback on that person's acting abilities. Sometimes, learners complain that actors were "too easy" on them and ask for more resistance. Facilitators excuse the actors once feedback has been exchanged.

The Analysis Phase

The Analysis Phase is where learners "make sense" of their performance during the simulation by "applying, analyzing, synthesizing, and evaluating information" (Center for Medical Research 10, 12). The authors of PEARLS offer facilitators several strategies to approach the analysis phase depending on the amount of time available to debrief, whether the reason for a performance gap was clear, and if the performance gap was cognitive, technical, or behavioral in nature (Eppich and Cheng 108).

Ideally, facilitators will use what Cheng et al. refer to as the "advocacy-inquiry approach," which they describe as "the *conversational* strategy that is part of debriefing with *good judgement*" (422, emphasis added). In this approach, facilitators begin by stating the performance behavior under question, sharing their opinion or perspective on it, and then inviting the learners to comment and provide their rationale (ibid. 423, Palaganas et al. 82-83).

Using language from transformative learning, Cheng et al. note that "the underlying rationale for action, or frame, is often determined by the learner's prior experiences, knowledge, assumptions, or perception of the event" (ibid., The Center for Medical Research 12). As Palaganas et al. note, actions are observable, thoughts are not (82). Therefore, frames are vitally important to understanding why certain behaviors were performed during the simulation performance and to ensure that the debriefing conversation is open and the playing field between the learners and the facilitators is level. Facilitators are encouraged to share their "assumptions or conclusions" about a learner's behavior, but they must do so with "healthy skepticism and assume the [learner] is well-intentioned and intelligent" (The Center for Medical Research 12-13). This limits the risk of a learner being confused by the feedback they receive from their facilitator because the learner does not have to read their facilitator's mind (Cheng et al. 423). However, this approach can uncover multiple frames and render some facilitators unable to effectively address and close performance gaps by the end of the debriefing session (ibid.)

Video debriefing may be one way in which frames can be uncovered and explored. The audiovisual software that livestreams the simulation performance to the observers in the debriefing room also allows for the facilitator to play back key moments. Learners may disagree with how their peers or facilitators assessed their performance. The facilitator can use the recorded video as an "objective reflection" to show the learner how they actually behaved during the performance (Palaganas 83). This, of course, has several drawbacks: Learners may feel anxious about watching themselves, and facilitators may inappropriately use video debriefing to "settle an argument" (ibid.).

The Summary Phase and Evaluations

The summary phase concludes the debriefing session. Because it takes place at the end of the conversation, it is easy for facilitators to ignore, skip, or run out of time to conduct this phase properly (if at all). This is problematic, Cheng et al. argue, because the summary phase ensures that learners are taking away the desired educational goals (424). Asking learners to summarize the discussion (and their performance) also neatly encapsulates the entire simulation and debriefing experience into a meaningful "takeaway" (Palaganas et al. 84). Learners may even use this phase of the debriefing process to identify "enablers and barriers to enact change in their setting" (Eppich and Cheng 111). The debriefing session could end with the facilitator providing their own "take-home message," complimenting the summaries provided by the learners (Cheng et al. 425), but the authors of PEARLS prefer a learner-guided approach to crafting summaries (Eppich and Cheng 112).

THSSC requires learners to complete an online survey before they leave the simulation center. Most of the questions on the survey ask learners to respond by using a five-point Likert scale, but there are several questions at the end that allow for qualitative feedback. HealthCAST-supported scenarios require learners to answer two additional questions: "What impact, if any, did a live standardized/simulated patient (actor) have on your ability to achieve the objectives of the scenario (instead of a manikin)?" and "How can simulation learning experiences with standardized/simulated patients (actors) be improved?" The responses to these questions are almost always positive, with learners praising the added realism when working with an actor.

CHAPTER 3. REPRODUCING HEALTHCARE

In the introduction, I argued that simulation in healthcare education relies on reproduction and representation to induct participants into the interpretive community we call "healthcare." It is difficult to neatly separate out the reproduction from the representation (and vice-versa) because how the performers engage with one another is often directly affected by the setting itself. To illustrate this challenge, I offer the following two simulation scenarios produced at THSSC as examples. The first scenario is typical of most of the HealthCAST-supported simulation performances, whereas the second is specific to that scenario. However, the differences between these two simulation performances reveal many of the qualities to be covered in the next two chapters.

The first scenario follows a patient dying of cancer. Three spaces at THSSC are used for the production: the simulation theater (the intensive care unit for the first three scenes and the studio apartment for the fourth scene), a control room, and a debriefing room. The performances feature an actor performing as the simulated patient and two or three learner-performers. These performances take place in the simulation theater, an immersive environment that looks, feels, sounds, and (for the most part) smells like the setting being simulated at THSSC. Depending on the space, the learner-performers will encounter actual hospital equipment such as fully functioning monitors displaying vital signs and patient-controlled analgesia pumps. Likewise, the actor performing as the simulated patient may be sitting or lying in an actual hospital bed, wearing a hospital gown with intravenous and catheter tubes taped to their skin, and with makeup and scarves representing the effects of chemotherapy. There is no "fourth wall" to consider for either the learner-performers or the actor performing as the simulated patient as they

would in a traditional theater space. Instead, the learner-spectators are in the debriefing room observing the performance on a large flat screen monitor while their facilitator and the simulation technician watch from a smaller computer in the control room. Both groups of spectators take written notes regarding the performance. The spectating healthcare learners may take notes about the patient's medical history, whereas the facilitator may take notes on the behaviors of the performing healthcare learners and how they intersect with the behaviors of the actor performing as the simulated patient. The facilitator can also "bookmark" significant moments of the performance as they occur, which allows them to quickly pull up clips from the performance during the debriefing session. The four scenes of the oncology scenario (determined by the simulation authors when writing the scenario), and the deliberate number of learners participating in the session, ensure that everyone has an opportunity to interact with the actor performing as the simulated patient.

The second scenario, the Hawai'i Interprofessional Team Collaboration Simulation (HIPTCS), brings together learners from across the State of Hawai'i. Learners from the fields of medicine, nursing, social work, dietetics, and spiritual care gather at THSSC and teleconference with pharmacy students from the University of Hawai'i at Hilo to develop a discharge plan that will be presented to the actor performing as the simulated patient's adult child. HIPTCS is a massive undertaking and demands the full resources of THSSC. There is simply not enough space for each group to have their own simulation theater, control room, and debriefing room. Instead, the debriefing room doubles as the simulation theater and the debriefing space. The sheer number of participants also means that not every healthcare learner has an opportunity to interact with the actor performing as the patient's child. One learner from each discipline is chosen to be part of the interprofessional team interacting with the actor performing as the

simulated patients' child, and the remaining healthcare learners quietly observe from the perimeter of the room. The immersivity found in the oncology scenario gives way to a more "traditional" theatrical experience where the performers and spectators are sharing space with one another. The "fourth wall" of proscenium theater is present but that wall is as permeable in "traditional" performances as it is in simulation performances. Even though the spectators sit quietly and observe from a (small) distance, they can affect the simulation performance by shifting in their seats, coughing, sneezing, giggling, or making facial expressions that catch the eye of one or more performers. However, not every participant is in the room. The learner-performer representing the pharmacist is teleconferencing from Hilo, and the learner-performers on O'ahu often forget about their peers on the Big Island. This has led to numerous occasions where the learner-performer in Hilo must interrupt the conversation to remind the rest of the interprofessional team at THSSC that they are "there" and need time to share information with the simulated patient's family member.

These two examples demonstrate how reproduction and representation work hand-in-hand with one another to create the overall simulation experience. Simulation centers reproduce actual healthcare settings that are designed to immerse the participants in the environment. Some simulation centers, like THSSC, reproduce other settings that may be important to providing care (such as a patient's home). Additionally, these reproductions are also designed to transmit the simulation performance to the spectators who watch the performance on a screen in a different room. This arrangement – immersive environments experienced by the performers but observed from afar by the spectators – is a fascinating topic to explore through the lens of performance studies.

This chapter focuses on how simulation in healthcare education uses reproduction (namely, immersion) to facilitate representation. I begin by drawing upon immersive theater practices and how they relate to simulation in healthcare education. Immersivity within simulation in healthcare education is often linked to "fidelity," i.e., how closely the reproduction reproduces reality. I end with a discussion on how simulation in healthcare education contributes to a long-standing debate between the efficacy of "live" performance versus "mediatized" performance.

Immersion through Reproduction

Actors new to HealthCAST receive a tour of THSSC as part of their first rehearsal. One of the first stops on the tour is the pediatric intensive care unit (PICU), which is furnished with an actual baby warmer near the center of the room, an actual incubator in one corner, and a crib in another. A vital sign monitor hangs off the wall near hookups for air and oxygen cannulas. On the other side of the room is a large cart with a dozen differently labeled cubbies filled with actual medical supplies such as cotton swabs, tubes, syringes, and needles. Next to the supply cart is medDispense, a large grey cabinet that, as its name implies, automates the dispensing of prescription medication (all simulated at THSSC, of course). Unlike most of the simulation theaters at THSSC, the PICU does not have a two-way mirror leading into one of the control rooms. Aside from the cameras and microphones dangling from the ceiling, it looks like an actual PICU at an actual hospital, in part because it was modeled after an actual PICU from a local hospital in Honolulu. This is one of the reasons why I choose this space to articulate to the actors the degree of immersivity they can expect when they perform in a simulation performance as compared to a traditional theater production. In a traditional theater production, the actors

would have to "cheat out," i.e., pivot their face and bodies towards the audience so that the spectators can see the performers in action. They would have to project their voice so that the spectators in the back of the auditorium can hear them as clearly as those sitting in the front. They may need to exaggerate their physicality so that their movements and gestures are understood to the spectators in the back rows. Cheating out, projecting one's voice, and exaggerating one's physicality are not needed during a simulation performance; to bring these traditional theatrical practices into the simulation center would break the fidelity to realism and immersivity THSSC aspires to in its simulation performances.

Immersivity is a common goal for producers of simulation performances (not just at THSSC). Scott Magelssen participated in a myriad of "simmings" in his study, defining them as "live, three-dimensional, immersive environments in which spectator-participants engage in the intentionally simulated production of some real or imagined society, recognized by all parties" (5). Simulation in healthcare education, however, has struggled to define "how well a simulation replicates or represents 'reality'"[8] (Dieckmann, Gaba, Rall 183). Notable efforts on this front include "simulation fidelity" with components such as "physical fidelity, environmental fidelity, equipment fidelity, or psychologic fidelity," and "validity" including "face validity, content validity," etc. (ibid.). Interestingly, simulation pedagogues Peter Dieckmann, David Gaba, and Marcus Rall note that *presence* "has been used to describe simulation-based environments, to compare them to their real-world counterparts, and to describe the relation between both settings" (ibid.). We will return to the notion of presence in the next chapter.

Gaba, an influential pedagogue in healthcare simulation, takes a stab at defining simulation as "a technique, not a technology, to replace or amplify real experiences with guided

[8] This is another great example of how "reproduction," "representation," and "replication" are often used interchangeably.

experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion" (126). He offers up *Star Trek*'s "holodeck" as an ideal example of immersivity because participants cannot "tell the difference between the simulated experience and real life" (ibid.). Gaba's dream of simulation immersivity parallels the practices of theater artists who have produced immersive theater productions, which are the subject of Josephine Machon's 2013 book, *Immersive Theatres: Intimacy and Immediacy in Contemporary Performance*. Machon's descriptions of immersive practice often parallel the practices found in simulation in healthcare education, which draws from – and incorporates into its practice – artistic qualities.

It is important to note that simulation in healthcare education is not art, in part because its purpose is primarily pedagogical. This is, of course, a problematic distinction and could serve as the subject of an entire chapter, if not an entire dissertation. There are many highly regarded plays that are considered "art" that are also written to be educational (for example, some of Bertolt Brecht's plays). Furthermore, it is entirely conceivable to envision a spectator watching a performance from the control room with no conception of the simulation performance's pedagogical purpose. They would, therefore, expect to see art and perceive the performance as such. At THSSC, I have observed facilitators become swept away by the performance, even though they are fully aware of its pedagogical purpose and their role of providing feedback to the performers in the subsequent debriefing session. When this happens, the simulation technician is forced to gently nudge the enraptured facilitator and remind them that the scenario has run far past the allotted time.

All this is to acknowledge that the immersive practices that Machon explores comes from aesthetic performances (as do many of the theories and concepts used throughout this

dissertation). However, applying her study of immersive theater to simulation in healthcare education reveals interesting parallels between aesthetic and pedagogical performances.

Immersive theater "demands bodily engagement, sensually stimulates the imagination, [and] requires tactility," which promises "*felt*, transformative behavior within, and as a consequence, of the work" (Machon 26, emphasis in original). Machon notes that "in theatre discourse 'immersive' is now attached to diverse events that assimilate a variety of art forms and seek to exploit all that is experiential in performance, placing the audiences at the heart of the work" (Machon 22). Immersive theater "submerges" the audience into the action itself by "removing the rules of traditional theater, especially the distinction between spectator and observer and between the space where one observes and where the performance occurs" (Machon 21, 26-27). Here, immersive practice seeks to resolve a long-standing debate amongst performance scholars and practitioners on the role of the spectator during a performance. At the heart of this discussion is the prevailing view that the traditional theater spectator is a "static witness and obedient consumer, a socially disembodied, ideologically and physically passive receiver of visual and aural messages" (Werry and Schmidt 468). These passive spectators observe actors performing behind an invisible "fourth wall" and provide little to no impact on the performance; the audience could leave, and the actors could carry on without them (Machon 21). This passivity is seen as "the opposite of acting" and has inspired countless theater artists and theorists to develop performance practices that wrest spectators into "active participants," such as what is found in immersive theater performances (Rancière 2, 4). As will be discussed further below, this perspective is not unproblematic and has been forcibly challenged by scholars and critics such as Jacques Rancière.

This “vital" practice of physically inserting audience members and encouraging direct participation leads immersive theater practitioners to create elaborate, three-dimensional performing spaces where audiences freely roam throughout the venue, constructing their own narrative as they encounter the actors and other audience members (Machon 57). Atmosphere becomes an important quality of immersive practice which can include odor, lighting, and sound. These qualities are “not bound to a place but nonetheless pour out into, and thus shape, the space” (Fischer-Lichte 115). Aural spaces, to borrow the phrase from Fischer-Lichte, include both sounds intended by the production and the unplanned incidental sounds that force themselves into the performance. For example, THSSC has long experimented with the right sound to cue the actor performing as the simulated patient to portray a post-traumatic, stress-related flashback. Originally, THSSC did not provide a sound cue. The actor was instructed to wait approximately five minutes before performing the flashback but, because time is difficult to gauge while performing, actors would sometimes perform the flashback too early (before the learners had an opportunity to establish rapport or evaluate their patient) or too late (leaving the learners with insufficient time to follow up with their patient after the flashback ended). The nursing faculty decided to cue the actor with a sound that could trigger a flashback, and the technicians experimented with the sound of a car backfiring, fireworks, or a car accident. However, this presented some unforeseen challenges. The fireworks often confused the learners because the simulation performances occur during the day. Once, the learners thought the sound of fireworks going off was what the actor/simulated patient was hearing in their head. They ignored the sound because they thought it was for the actor and not part of the immersive experience. Vehicular sound cues work better, especially since the simulation theater used for this scenario includes windows that face a high-use street. It is more plausible that a car would

backfire or a fender-bender occur outside these windows than for fireworks to go off at ten in the morning. However, this presents a challenge to the actor performing as the simulated patient waiting for the sound cue. The ambient street sounds persistently penetrate the simulation theater. The air brakes of a large truck, the roaring exhaust of a modified car or moped, and the occasional honk of the horn are often louder or more evocative than the sound cue played through the overhead speaker and can confuse the actor (or contribute to their performance by increasing their agitation)[9].

Machon notes that immersive theater requires its participants to encounter the performance with "a childlike excitement for curiosity and adventure, perhaps equally a wariness of compliance" (28). Here, we start to find daylight between the aesthetic and pedagogical performances that incorporate immersive practices. Simulation in healthcare education may indeed seek to spark a spirit of curiosity and adventure in its participants through experiential learning, but compliance is certainly part of healthcare (and thus part of healthcare education). As the next chapter will detail further, behaviors characteristic of a professional nursing identity become ingrained through simulation performance. Machon also observes that immersive practice in aesthetic performances seeks to produce experiences that ensure that "each particular environment has its own order and logic; a logic that encourages a spontaneous response from its audience and *requires a personal abandonment of everyday boundaries*" (27-28, emphasis added). Immersive practitioners encourage this abandonment differently, from requiring its

[9]On the surface, this example suggests that genre conventions (in this case, immersive realism) were not established clearly enough, leading to confusion. However, I believe this example highlights how simulation is often treated as a *modality* instead of a *performance*. Aspects that a theater practitioner would take for granted, like genre conventions, are not always considered by simulation producers and occasionally leads them to make strange "choices," such as fireworks going off during a daytime performance. Simulation, therefore, needs a dramaturg, i.e., a member of the production team that helps keep the director, actors, and designers aligned with their shared vision for the production.

audience to wear masks (as in Punchdrunk's *Sleep No More*) or encouraging bacchanalian behavior (as in the off-Broadway production, *Fuerza Bruta*) (Machon 27). Simulation in healthcare education certainly operates under its own order and logic. Critics have used that fact to argue against simulation's efficacy in healthcare education, and I will respond to those critiques in the final chapter. For now, examples of simulation in healthcare education's unique rules and logic include the need for the healthcare learners to verbalize certain procedures in order to maintain the safety of all participants, such as inserting IVs. Similarly, learners may disrupt the performance to "talk to the ceiling," i.e., ask the simulation technician for vital signs that they cannot take from the manikin or the actor performing as the simulated patient.

However, simulation in healthcare education does not ask its participants to abandon their everyday boundaries; it seeks to affirm them. For example, physical touch is an important component in most simulation scenarios. This is notable because physical contact between performers and spectators in traditional theatrical performances is rare but "often crucial to the immersive performance experience" (Machon 77). In simulation in healthcare education, learners gain a better understanding of how and when to employ therapeutic touch appropriately and effectively. Thankfully, the healthcare faculty does not dictate how the actor performing as the simulated patient responds to uses of therapeutic touch. Some actors appreciate the touch, some do not, and some can appreciate the attempt even if the execution was lacking in empathy. For example, I remember a healthcare learner trying to console me after I performed the PTSD-induced flashback by patting me on the back and repeating "it's okay. It's okay." The gesture and the words were appropriate, but they were both delivered monotonously, without empathy. My character was not consoled, and I shared this feedback to the healthcare learner and their peers during the debriefing session.

There are, of course, exceptions where touch is not welcomed, for example, in scenarios that involve escalated tension between the simulated patient and learner-performers.[10] One notable example in the HealthCAST repertoire is our child abuse scenario, which has led to visibly upset learner-performers as they navigate the fraught experience of determining whether a child has been harmed by their parent. No matter how intense the performance gets, the actor performing as the simulated parent will never hit or touch the learner-performers. In debriefing sessions after rather intense performances, I like to joke that simulation is like a haunted house. "We can yell at you," I tell the learners, "but we can't touch you." Of course, the lack of physical touch does not mean that simulation participants are unaffected by the experience. This is one reason for beginning the debriefing session with a "blowing off steam" phase – it allows the facilitators to check-in with the participants before proceeding with the feedback phase.

Another example of unwelcome touch led to changes in THSSC's policies and procedures to ensure the physical and psychological safety of the actors. The graduate nursing curriculum at SONDH includes several simulations that modify the Objective Structured Clinical Examinations (OSCEs), a high-stakes event often used to evaluate healthcare learners during their educational career. True OSCEs use standardized patients that are validated to ensure consistent (standardized) performances that allow for objective evaluation of the examinee. THSSC does not validate performers, and the modified OSCEs are not considered "high-stakes" (although the learners are often clearly nervous before the simulation performance). These modified OSCE simulations – now referred to as OSLE (Objective Standardized *Learning*

[10] This is also true of immersive practice: not every behavior or choice from the performers can be "productively incorporated into" the feedback loop (62). For example, Fischer-Lichte writes about a scene in Schechner's *Dionysus in 69* in which the actors caressed audience members. This scene had to be cut because many spectators took the action as an invitation to reciprocate the touch, often in ways unintended (and unwanted) by the performers (ibid.).

Experience) – remove most (if not all) of the emotional and psychosocial content that typifies a HealthCAST-supported scenario. The performers are given a specific illness (for example, bronchitis), a standardized opening line ("I have a cough that's getting worse"), and some very basic facts about their character and about their illness (when their symptoms began, any over-the-counter medications taken, sexual history, etc.). The healthcare learners have twenty minutes to complete a health history and assess the patient to determine the illness. This typically includes touch, both by hand and with medical instruments such as a stethoscope. Actors for the OSLE simulations are given hospital gowns to wear during the performance. For several semesters, the actors (especially our female performers) were advised to wear a tank top under the hospital gown that would represent their skin, i.e., the healthcare learners would conduct any necessary medical examinations (palpations, stethoscope, etc.) under the hospital gown but *over* the tank top to maintain respect for the actor. However, our actors reported many instances where the learners still conducted their tests under both the hospital gown and tank top, ignoring the rules established before the simulation performance. The performances continued despite the rules breach, but they affected all involved in ways unintended by the producers of the simulation. Sometimes, the actors would look directly into the camera when the rules were being broken, as if to alert the simulation technician and/or the facilitator that they were uncomfortable. While we have never stopped a simulation performance because the actor stared into the camera, I have watched simulation technicians become agitated as they deliberated on whether they should intervene. Unlike traditional theater practices, where the audience maintains the usual rules of keeping silent during a performance, those in the control room can converse and deliberate by virtue of being physically removed from the performance itself. The learners who ignored the rules regarding actor privacy often find themselves in remediation,

either by repeating the simulation performance with a different actor or through a conversation with their professor. Still, these rare occurrences remind us of the power dynamics in any performance. As intimacy choreographer Chelsea Pace notes, "actors are trained to say yes," and no matter how "egalitarian, consensus-based, and all-around awesome and approachable" the producers may be, actors are often too fearful to say "no" when someone crosses a boundary (7). The steps taken by THSSC to ensure the actor's physical and emotional safety is certainly in the right direction and Pace's work (along with her colleagues at Theatrical Intimacy International) are great resources towards establishing a culture of consent within simulation performance.

Immersive practice seeks to turn passive spectators into active ones, but some believe this entire notion is flawed. French philosopher Jacques Rancière argues that the very opposition of "activity/passivity" actually creates the distance that practitioners seek to "abolish" because the connotations assigned to the words "active" and "passive" are not inherent in the concepts themselves (12). He points to old laws that viewed property owners as "active" and workers as "passive," with only the former group allowed to serve in public office (12-13). Rancière, therefore, calls on theater practitioners to "emancipate" the spectator by acknowledging that

> the spectator also acts […] she observes, selects, compares, interprets. She links what she sees to a host of other things that she has seen on other stages, in other kinds of place. She composes her own poem with the elements of the poem before her. She participates in the performance by refashioning it in her own way – by drawing back, for example, from the vital energy that it is supposed to transmit in order to make it a pure image and associate this image with a story which she has read or dreamt, experienced or invented.

> They are thus both distant spectators and active interpreters of the spectacle offered to them. (Rancière 13)

Carlson references Rancière to observe that productions often associated with the immersive theater movement seek to emancipate spectators by allowing them to roam through carefully crafted theatrical environments, encounter staged vignettes, and interact with the space (*Shattering Hamlet's Mirror* 114). However, Carlson argues that this emancipation is "virtual" or "illusory" (ibid. 115). Using the theater company Punchdrunk as his example, Carlson notes that audience members could not interact with other audience members or the actors themselves in their production of *Sleep No More*. They could choose *how* they experienced the production, but they could not affect its outcome. Likewise, Punchdrunk's production of *Speakeasy Dollhouse* "encouraged" spectators to arrive in costume, perform in character (assigned to the audience members once they arrive at the theater), and interact with the actors (ibid.). However, the audience still could not affect the outcome of the play once the action began. This leads Carlson to discuss Magelssen's work on simming, acknowledging that simming is "phenomenologically very close" to the immersive theater productions Carlson describes, "especially in the terms of the utilization of the real, which in both cases is primarily involved with the interaction of real bodies and real locations and physical objects" (Carlson, *Shattering Hamlet's Mirror* 116). The difference, for Carlson, is that simming is not "generally narrative driven" but instead seeks "to capture a particular experience" by generating "a 'real' physical experience by mimetic means" (ibid.). He continues his discussion by shifting his focus to other theatrical groups, such as Germany's Rimini Protokoll, that are also not driven by narratives. Carlson's analysis of immersive theater and his brief thoughts on simming, therefore, seem to

suggest that simulation performance in healthcare education occupies a space somewhere between the simmings described by Magelssen and non-narrative performances. The experiential nature of simulation performance is tied to the narrative of the simulated patient and the performers in the room. Like *Speakeasy Dollhouse*, spectators do arrive to the simulation theater in costume but, unlike the other Punchdrunk productions critiqued by Carlson, they very much influence the outcome of the performance either by assuming the role of a performer-learner or through their feedback during the debriefing sessions.

Lastly, as the HIPTCS example provided in this chapter's introduction highlights, simulation in healthcare education does not necessarily equate the "passivity" of the spectators with absence of learning. The learners who do not get the opportunity to perform in the simulation performance alongside the actor are seen as receiving similar educational benefits as those who do take on the role of an actual healthcare provider guiding a patient's family member through the hospital discharging process.

Fidelity to Reality during the Immersive Experience

Immersive theater strives to maintain a close fidelity to reality but, as this section will discuss, often finds itself varying the degree to which certain qualities and characteristics of the performance are real due to safety concerns and/or budget constraints (Tun et al., 162). Fidelity to reality is also a "crucial factor in terms of design, cost, and educational effectiveness of a simulation" performance (Tun et al., 160). The three-dimensional nature of the immersive production and the blending of performer and spectator spaces require significant effort if the goal is to produce a highly realistic experience for the participants. Traditional theater has the luxury of a distanced audience to hide or cheat certain aspects of its production design to suggest

a fully realized space. As anyone who has performed in a traditional, proscenium style production can attest, the set designer's attention to detail ends at the point where the audience can no longer see their work. This is understandable: There is no need to waste precious time and money on something that is only visible to the actors and stage crew. However, immersive theater does not enjoy this luxury and neither does simulation in healthcare education.

Take, for example, THSSC's studio apartment. It is a large space furnished with a taupe sofa placed against a blue accent wall, a kitchen area equipped with an actual stovetop and full-sized refrigerator, and a bedroom area that features a murphy bed and two nightstands. At first glance, the studio apartment is nice, albeit more like a hotel suite than someone's lived-in home. It lacks "set dressing," i.e., the personal touches, such as family photos or knickknacks acquired during vacations[11], that would give the space a sense of being lived in (and therefore, feel more realistic to the participants). Even the decorations on the walls seem borrowed from a hotel lobby. However, a closer look at the apartment space crumples its fidelity to reality even further. Most of the books on the bookshelf are medical texts, an unlikely collection for a lay person. The bowl of lemons on the shelf above the kitchen counter are made of plastic, and the canister of tea bags are sun faded and long past their expiration date. The refrigerator is unplugged and barren. However, these details do not draw attention to themselves on their own. The learner-performers rarely notice these details, especially because they are often present in the space regardless of the scenario itself. In other words, the bowl of plastic lemons is there regardless of whether the apartment is being used to simulate a patient's home or a clinic office.

Elements that are specific to the scenario are much more likely to draw attention to themselves. For example, the final scene of our oncology scenario is set in the apartment where

[11] We have had actors performing as simulated patients place their own family photos around the studio apartment. This is not common, but it did elevate the degree of immersivity and believability (especially for the actor).

the simulated patient requires breathing assistance. The actor performing as the simulated patient wears an actual nasal cannula which is hooked up to an actual oxygen flowmeter. These actual pieces of medical equipment are then inserted into a cardboard box with a printed-out photograph of an oxygen tank taped to its side. This intrusion into the immersive environment does not derail the simulation performance, per se, but it does serve as a constant reminder to the learner-performers that they are participating in a performance. Yet, performers can still get swept up in the emotional intensity of the scenario. In one performance of the final oncology scene, a learner excused themselves from the conversation with the simulated patient so that they could stand in the corner by the entrance to the apartment and cry.

Magelssen, in his analysis of a simulated Iraqi town used to train military soldiers, observed that simulation performances aim for realism, but its producers are more than willing to negotiate "between striving for realism and finding a space where such qualities are compromised or made elastic for the sake of the goals and protocols of the exercise" (162). In fact, as Magelssen quotes from a study on a Cold War simulation, "realism is not only selectively deployed, it is selectively desired" (T. Davis 74). The same is true for theatrical productions. In 1881, Emile Zola declared that "today, accuracy of setting is a consequence of our obsessive need for reality," a sentiment that still rings true today (360). Yet, even then, fidelity to realism was not universal. Zola noted that some contemporary critics of realism on stage believed that "only the furniture or the objects used as props should be real; the rest should be painted on the scenery" because the actual pieces allowed the audience "to guess" what actions the characters would perform on stage (ibid.). Likewise, Zola acknowledged that theater producers struggled between fidelity to realism and the audience's desire for spectacle, asking facetiously, "who would dare risk having a play take place among the drab bourgeoise, or among petty merchants,

or among the common folk, when the public insists on dresses costing five or six thousand francs" (364). In this way, simulation pedagogy also finds itself torn between what it wishes to reproduce realistically and what its participants desire.

For example, odor is a particularly powerful sense that can trigger both positive and negative associations within participants. Actors new to HealthCAST almost always comment that THSSC "smells like a hospital," which sometimes leads them to share their own experiences with healthcare facilities. What the actors are referring to, however, is the sterile, clean smell of a hospital.[12] They are not referring to the smells of bodily fluids and other unpleasant odors that may be found inside hospitals. These odors are not desired by the simulation producers and are therefore excluded from the overall atmosphere of the performance. The silicone replicas of vomit and feces that appear in several HealthCAST-supported scenarios look disgustingly realistic, but they lack any kind of odor (and lack the physical characteristics of the actual fluid). Likewise, a scenario that takes place in a patient's house is designed to *appear* dirty. Empty bags of take-out fast food, open cans of tinned food, mucus-filled tissues, and dirty clothing litter the floor. Plastic cockroaches, flies, and geckos are scattered across the apartment floor, walls, tables, and seating areas. However, all this mess is clean. None of the props emit odor. The fast-food bags are not stained with grease. The simulated patient owns a cat but there is no simulation of the cat's litterbox. It is not hard to imagine how the odor of cat urine and scattered litter – or the offensive smell of vomit and feces side-by-side in a bed pan, as in the example

[12] The sterile atmosphere of THSSC extends beyond physical (and olfactory) cleanliness and into the overall discourse that takes place in the simulation center. I often caution actors that they will have to censor their language while working at THSSC, including during simulation performances, because the goal of creating "professionals" is the tacit agreement to refrain from cursing. The aversion to cursing is so strong that I remember a facilitator's offhand utterance of "fuck" during a pre-simulation welcome to an interprofessional group of learners was the topic of much scrutiny at THSSC for several days. Some facilitators, however, have expressed concern that the sterile language in simulation does not adequately prepare learners for the actual clinical setting and have noted that new nurses are surprised, or even put off, by how their peers communicate in the workplace.

above – would physically and emotionally impact the participants; it would make the performance "more real." However, this is not a desired quality of the simulation performance because it conflicts with the cleanliness and sterility that the simulation center's faculty and staff desire for their space.

Furthermore, it also highlights a tension that simulation producers face regarding the degree to which they fully immerse the learner-performers. Simulation producers delight when learners comment in post-performance evaluations that the experience "felt real" or, when working with actors, "forgot" that they were working with a simulated patient. At the same time, there are constant verbal and visual reminders (medication vials that read "For Simulation Use Only," for example) that the experience is simulated and not actual. Lastly, simulation producers never lie to their learners about the simulated patient, i.e., they do not tell the learners that the patient is real only to reveal that it was an actor once the simulation has concluded. This tactic is not only unethical, but it would also rapidly erode the learner's trust in the facilitators and thus weaken the efficacy of the simulation experience.

Simulation Is Live (and Mediatized[13])

One of the common distinctions attributed to theater in relation to other performance-based mediums, such as film and television, is that it is live and unmediated. In other words, the performers and the spectators share time and space with one another throughout the duration of the performance. Performance scholar Philip Auslander argues, however, that "liveness is not an ontologically defined condition but a historically variable effect of mediatization" ("Digital

[13] I continue Auslander's use of the term "mediatized" and "mediatized performance," which he "borrowed from Jean Baudrillard" to describe "performance that is circulated on television, as audio or video recordings, and in other forms based in technologies of reproduction" (4).

Liveness" 3). He points to the advent of audiovisual technology, especially radio, as the condition that allowed theorists, performers, and spectators to identify a performance as live or not live; before, such a distinction was not necessary since liveness was simply an implied condition of the performance (ibid.). Auslander observes that mediatized performances are often treated as "secondary" to live performances because they are seen as "artificial reproductions of the real" (3). Live performances, on the other hand, are not only viewed as "real" but are bestowed with "positive qualities," including "spontaneity, community, presence, and feedback between performers and audience" (3, 63). These qualities of live performances are given emphasis because performance itself is ephemeral. Spectators attending the same production two evenings in a row will experience a different performance each night because the makeup and energies of the audience as well as the energies of the performers contribute to the unique nature of a given performance. For many scholars, this makes it difficult to preserve live performance through recordings. "All attempts to record [live performances] aurally or visually are bound to fail," argues performance scholar Erika Fischer-Lichte, "and only highlight the unbridgeable chasm between the performance and a fixed, reproducible artifact" (75).

Fischer-Lichte argues that the shared presence of the performers and spectators generates the performance itself through a "self-referential and ever-changing feedback loop. Hence, performance remains unpredictable and spontaneous to a certain degree" (Fischer-Lichte 38). Fischer-Lichte's *autopoietic feedback loop* considers the ways in which the shared presence of the performers and spectators affect one another throughout the performance. Spectators may shift in their seats, yawn, or cough, alerting the performers that they are losing (or have already lost) their audience's interest. Performers may briefly pause the action whenever the audience laughs so that the spectators can enjoy the moment without fear of missing the following

dialogue. This is a significant contrast to mediatized performances where the performers and spectators are distanced from one another by time, space, or both. Spectators at a cinema watch a performance that was filmed and edited months or years beforehand. The spectators at a cinema can affect the viewing experience of their *peers* by laughing, shifting in their seats, yawning, or coughing, but they cannot influence the performance itself. The "feedback loop" between the performers and spectators that is found in live theatrical performances is thus "invalidated" by the distance of time and space between them (Fischer-Lichte 68).

As the examples in this chapter's introduction suggest, these qualities are not always present in healthcare simulation performances. The learner-spectators observe the learner-performers in a completely different room on a screen. The feedback loop between the learner-spectators and the learner-performers is therefore broken *during* the performance, but that does not mean it is severed entirely. The subsequent debriefing conversation informs how the next group of learner-performers will engage with the simulated patient. I often joke with actors performing as simulated patients that it is very clear what the learners discussed during the debriefing session because the next group of learner-performers will lead with that new information in the subsequent scene. For example, if they completely forgot to ask the patient about their smoking habits – and missed the visual cue of tobacco and rolling papers on the table next to the actor performing as the simulated patient – the next group of learner-performers will begin the performance by asking their simulated patient if they smoke.

Steve Dixon, however, argues that shared presence has become a "fetishized concept" (131). He acknowledges that presence is often defined as "the material, auratic, proximal 'real' […] the flesh-and-blood performer, there with you in the same shared physical space" (132). But presence, he argues, is always, well, present, regardless of the medium at hand. He denies

any semiotic difference between the description on a page or its enactment on a stage or screen, asserting that "to argue the sanctity and superiority of human corporeal presence […] could be seen to privilege one artform over another, and to fetishize ephemeral forms of expression" (ibid.). Instead, Dixon argues that *temporality* has more bearing on the spectator than presence, writing "it must be agreed that liveness has more to do with time and 'now-ness' than with the corporeality or virtuality of subjects being observed" (127). He continues by suggesting that "liveness in itself has nothing to do with the media form, but at core [sic] concerns temporality. Put simply, for the spectator, liveness is just 'being there,' whatever performance form (live, recorded, telematic – or their combination) is being watched" (128). Perhaps this is why the learner-spectators can be just as moved by the simulation performance as the learner-performers, even though they are not sharing space with the simulated patient. The "temporal simultaneity of production and reception" is what Auslander refers to as "live broadcast" because spectators "experience the event as it occurs" (61). Similar media include radio, the internet, and television (ibid). Television holds a prominent place in Auslander's thought, which he deems the "dominant cultural medium" because, in part, it carried "an ontology of liveness more akin to the ontology of theatre than to that of film" (11, 12).[14] Auslander notes that "the resemblance of televisual discourse to theatrical discourse was strongest" in the first few decades of television production because its technology was too "clumsy" to "replicate cinematic discourse" (20).[15]

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[14]Auslander makes this claim in the second edition of his book, *Liveness*, which was published in 2008, only one year after the first iPhone was sold and one year after Netflix first offered a digital catalog of films to its subscribers. I suspect that a third edition of his book would find Auslander positioning smartphones, streaming services, and social media as the new dominant cultural media. I discuss this further in Chapter Five.

[15] Old advertisements for television sets showcased families wearing suits and dresses to watch their favorite programs as if they were attending a live theatrical event (Auslander 17). Likewise, THSSC requires its learners to dress in uniform, something considerably more formal than what the learners likely wear when they watch television at home.

Cameras had to remain outside of the performance area, forcing actors to play to the fourth wall as if they were on stage. Camera movement was also limited, which lent television productions "immediacy, the sense of a continuous perceptual experience unfolding in real time" as found in theatrical productions (ibid.). The multiple cameras provided slightly different angles which were neither cinematic nor theatrical. Auslander, citing Mary Hunter, highlights how the spectator at a theatrical production chooses where to look on stage (19). Although theatrical directors know how to guide the audience's attention through composition and focus-drawing techniques, the spectator is free to ignore these suggestions and look wherever they like during the performance. Television and film, however, are entirely dependent on the camera and the subsequent edit. This leads Auslander to comment on the practice of using a "live studio audience," which he claims "is a simulation, rather than a replication, of the conditions of live theatrical production. […] Because the programs are edited, however, the home audience does not see the same performance as the studio audience, but rather a performance that never took place" (22). Of course, television production technology has improved to allow for more cinematic practices. Television's effort to "reproduce the theatrical image" now sought to transport viewers into the scene being presented (film), instead of transporting them into the space where the scene was being performed (theater) (Auslander 18).

At THSSC, the livestream of the simulation performance was projected onto a screen that descended from the ceiling. Technical issues, including subpar image quality, led THSSC in 2018 to install 72" flat screen monitors in the debriefing rooms. The feed from the multiple camera angles (the cameras in the simulation theater are mounted to the ceiling, and their movement is limited to pan, tilt, and zoom) are displayed simultaneously to the learner-spectators, who can decide for themselves which angle to watch. Sometimes the different angles

can experience lag, which results in some of the angles being visually out of sync with each other. In 2019, THSSC upgraded their audiovisual hardware and software. This improved the overall quality of the video feed and provided a new way to present the simulation performance. The original software allowed for four simultaneous angles that were displayed in an equally sized grid (usually, the simulation center presented three angles of the performance and used the fourth to display the patient's monitor tracking their vital signs). The new software allows the simulation technician to choose different video layouts. They can make one angle much larger than the other angles, which guides the learners' focus. The way in which the learner-spectators experience the simulation performance, as Dixon notes, changes "the *type* of attention and focus" they afford the performers (Dixon 129, emphasis in original). Spectators at a live performance may seem more alert, whereas spectators at a cinema tend to sit back in their reclining chairs and snack on popcorn. Likewise, at THSSC, learner-spectators may recline in their chairs to watch the performance as it unfolds, only to lean forward when the tensions start to rise. Dixon acknowledges several different rationales for the different types of foci, including cultural norms, but settles on an interesting explanation. "Watching film, video, and digital media is a more voyeuristic experience than watching live performance, since in the literal sense of the word, the onlooker is looking from a position without fear of being seen by the watched" (Dixon 130). However, at THSSC, a "confidence monitor" next to the main 72" screen displays a livestream of the learner-spectators to themselves. This same livestream of the learner-spectators is also fed to the control room where the facilitator and simulation technician observe the simulation performance (complicating Dixon's observation that mediatized performances necessarily provide a voyeuristic experience for the spectator; here, only the facilitator and simulation technician are unobserved).

It could be argued that simulation producers *prefer* the mediatized performance over the liveness; after all, it is often said around THSSC that the learning happens in the debrief, not the performance. The software that livestreams the simulation performance also allows the facilitators to "bookmark" significant, teachable moments as they occur during the performance that can be instantly recalled during the debriefing session for instruction and reflection. This becomes a new performance because, as Auslander observes, "the televisual image is not only a reproduction or repetition of a performance, but a performance in itself" (49). The learner-performers featured in the video playback of the simulation performance now find themselves restored to their original role as a learner-spectator. Although the learner-spectators of the simulation performance have seen this performance before, revisiting the performance alongside their peers who performed in the simulation changes the experience for them and establishes different expectations. During the initial performance, the learner-spectators could observe, take notes, and discuss their peers' performance amongst themselves in the voyeuristic manner suggested by Dixon. Now, they are expected to critique their peers directly. What may have been lost or overlooked during the initial performance has now become highlighted and rendered significant by the facilitator's choice to bookmark a specific moment and re-present it to the entire class for feedback.

CHAPTER 4. REPRESENTING HEALTHCARE

If the steady stream of televised medical dramas is any indication, hospitals are sources of great dramatic conflict. From *Doogie Howser, M.D.* to *Grey's Anatomy, Scrubs*, *Chicago Med*, and *E.R.*, to the reboot *Doogie Kameāloha, M.D*, these programs represent the daily trials, tribulations, and joys of patients, medical personnel, and staff. These shows are clearly performances: The actors and spectators engage in a shared activity of "make-believe," whereby an interpretive frame (the television set or the smartphone) delineates between "the world of the performance and everyday reality" (Schechner 43). During the performance, spectators develop connections with the characters as represented by the actors and not the actors themselves (although social media and paparazzi may influence the spectator's opinion of the actor and their performance). Spectators delight in watching how the characters' professional careers and relationships grow throughout the multiple seasons even though they know these developments are scripted.

Yet, an actual hospital with its actual doctors, nurses, staff, and patients could be seen *as* a performance. A family member sitting in the waiting room could easily erect a mental interpretive frame of "performance" and observe the various players in the hospital. The way two nurses speak with one another can convey power dynamics or interpersonal relationships. The layout of the space can convey sterility and calm. Even how they, the interpreter, comport themselves during the wait all contribute to the performance at hand. These performances do not make-believe but, to use Schechner's term, "make-belief," which creates "the very social realities that they enact" (42).

The boundaries between "is" and "as" performance, and between "make-believe" and "make-belief," are not always clearly defined, and simulation in healthcare education operates within these blurred boundaries. Simulation centers establish clear interpretive frames of "performance" but, unlike watching medical dramas, the spectators *are* the performers. They represent themselves during a defined period of make-believe, but the goal is not entertainment (as is the case with the medical dramas) but to make belief. Therefore, the goal of this chapter is twofold. First, I want to explore how simulation in healthcare education represents the various players that operate within actual healthcare settings and how this component creates and establishes professional identities. Second, I want to look at the stories being told within simulation performances and how they reify or challenge the status quo within healthcare.

Perceptual Multistability

In Chapter Two, I referenced Richard Schechner's performance quadrilogue to identify the simulated patient (portrayed by a manikin or an actor) as the performer and the healthcare learners as the partakers (spectators) in healthcare simulation performances. This oversimplification was useful in describing the performance processes that lead to a healthcare simulation performance. However, the actual relationship is far more dynamic. Although healthcare learners do spend most of the simulation session as partakers/spectators, they almost always interact with the simulated patient, which transforms their role into that of a performer (whether this makes them an *actor* is the subject of the next section). As will be discussed throughout this chapter, this is not a revolutionary transformation. Schechner himself notes that "partakers not only receive the action [of the performers] but may also participate in the actions. If they do participate, partakers at least temporarily become performers" (250). This

transformation from learner-spectator to learner-performer is not permanent, even during the performance itself. Erika Fischer-Lichte's notion of perceptual multistability is a useful concept to understand the dualities at play in a simulation performance.

Perceptual multistability considers the relationship between "presence" and "representation," which are often seen as opposing concepts (Fischer-Lichte 148). Presence has long been viewed as "authentic" because of its "immediacy and as the experience of opulence and completeness," whereas representation "belonged to the grand narratives, exerting an authoritative controlling mechanism" (Fischer-Lichte 147). She points to the naked bodies often found on stages throughout the 1960s and 1970s as one way in which actors (and perhaps even more so, their directors) tried to let loose the shackles of representation in favor of authentic presence because costumes ascribe meanings whereas naked bodies are the unmediated self of the actor (ibid.). Fischer-Lichte turns towards the relationship between embodiment and perception to demonstrate how representation requires the corporeal body of the actor for the character to come into being. "When an actor portrays a character," writes Fischer-Lichte, "they are not replicating what is already given elsewhere, say in a text, but creating something entirely new and unique which can exist in this manner only through their individual corporeality" (148). This does not mean that presence and representation are the same thing, says Fischer-Lichte. Rather, spectators engage in what Fischer-Lichte calls "perceptual multistability" (148). Audiences' perceptions fluctuate between seeing the actor as themselves (presence) and as a character (representation). The choices of the actors and the actions taken by their characters blur (ibid.).

During a high-fidelity simulation performance, the healthcare learners perform (represent) a future version of themselves, a professional self that is licensed and skilled to care

for a patient. However, they are themselves learners completing the necessary coursework to achieve their goal of becoming licensed and professional care providers (presence). The actor performing as the simulated patient represents their character – they do not actually have cancer or a sick mother in the hospital[16] – but their training encourages them to perform the role as themselves but with the given circumstances of the scenario (presence). Learner-performers constantly negotiate between their perception of presence (the actor's body) and their perception of representation (the character's body). The degree of fidelity lent to the performance by using an actual human body can make it difficult to discern which qualities of the actor performing as the simulated patient are pertinent to the learning objectives and which are simply part of the actor's phenomenal body. Healthcare learner-performers must rely on the actor performing as the simulated patient to guide them towards the "correct" perception. A cough from the actor performing as the simulated patient could be perceived by the learner-performers as a clue towards understanding their patient's illness. Or it was simply a wayward cough to clear the actor's throat. The actor performing as the simulated patient must verify or deny this perception while remaining in character, usually through verbal redirection (such as changing the topic or simply denying the learners' perception).

Learner-performers do not always step up to interact with the simulated patient during a simulation performance. I have performed in and have observed countless simulation performances wherein a natural leader emerges from the group of learner-performers, allowing their peers to simply observe the action. However, as Fischer-Lichte and Rancière have argued,

[16] Of course, the actor could actually have cancer or have a sick mother in the hospital and choose not to disclose this information. This was the case with prominent actor Chadwick Boseman, whose death shocked millions because he did not publicly share his colon cancer diagnosis and treatment efforts (Ugwu and Levenson). However, with HealthCAST, I make a significant effort to ensure that the scenario is not too triggering for the actor. I have replaced several actors because the scenario hit too close to home, and it was not considered safe for them to continue with the performance.

this does not mean they are passive. Their presence in the room contributes to the feedback loop. Their attention (or lack thereof) to the conversation at hand carries the same potential to influence the performance as spectators observing from their seats in a darkened auditorium, except now the actor performing as the simulated patient may choose to incorporate their perception of the "passive" learner-performer into their own performance. Furthermore, nothing stops the learner-performer from (re)inserting themselves into the action at any point during the performance.

Representation breaks abruptly whenever the learner-performers become unsure of themselves (their knowledge and skills) or how to proceed in the performance. At this point, their authentic self, their presence, regains primacy. The actor performing as the simulated patient must now negotiate between the authentic learner (how can they steer the learner-performers back on track?) and their representation of their future selves (should the actor respond to this disruption and, if so, how would their character behave in this situation?). Actors performing as the simulated patient must draw from their training – as an actor and as a simulated patient – and any previous experience performing in simulation to determine the most appropriate response. We are constantly revisiting our training materials, primarily the Scenario Guides, on how to prepare actors to respond to these situations.

The Actors in a High-Fidelity Healthcare Simulation Performance

There are many performers that participate in healthcare simulation performances, and not all of them simulate the patient. Michael Kirby observes that "not all performing is acting" and defines acting as "to feign, to simulate, to represent, to impersonate" (43). Kirby identified and categorized five classifications of acting and placed them on a continuum between "not-acting"

and "acting" (ibid.). These classifications do not focus on "the degree of 'reality' but [on] what we can call, for now, the amount of acting" (ibid.). Starting with the not-acting end of the continuum and proceeding to the acting end of the spectrum, the categories are "non-matrixed performing," "symbolized matrix" performing, "received acting," "simple acting," and "complex acting" (49).

The first two categories acknowledge that performers are "embedded […] in matrices of pretended or represented character, situation, place, and time" (44). Stagehands, for example, may be present during a performance to help with scene changes, but they "do not contribute to the informational structure of the narrative" (ibid.). Furthermore, their costume informs the audience that they are not part of the narrative, which leads Kirby to classify their acting as non-matrixed (ibid.). Symbolized matrix acting is when "the referential elements are applied to but not acted by the performer" (45). Again, Kirby points to the importance of costuming by offering the example of a performer on stage wearing a black leotard and cowboy boots. The audience will identify that actor as playing a cowboy, even though the actor's movements and behavior may suggest otherwise. This classification requires context because the same individual walking through a city may not suggest "cowboy" to their fellow pedestrians (ibid.). The interpretive frame of "performance" allows the audience to perceive the actor with cowboy boots as a "cowboy." Received acting occurs when "the matrices are strong, persistent, and reinforce each other" because "we see an actor, no matter how ordinary the behavior" (ibid.). Kirby offers background actors as examples of received acting. The background actor may simply walk from one side of the stage (or screen) to the other but, because they do so within highly realized matrices, the audience accepts them as part of the narrative. However, Kirby argues that these three categories of acting are "done to" the performer, i.e., the performer is not

acting in Kirby's definition of the word (feigning, simulating, representing, or impersonating) (46). Rather, the audience bestows upon the performer the designation of "actor" (which he deems "an honorary title") because they carry out actions within highly realized matrices (ibid.).

"True acting," as Kirby calls it, takes place because the performer is "doing" the acting (48). He makes a distinction between simple acting and complex acting, which simply suggests the amount of physical and/or emotional acting being done by the performer. Kirby uses a game of charades as an example. If someone pretends to put on a jacket and their team guesses the action correctly, then "the acting is successful," even though it would be categorized as "simple" (49).[17] However, if they were to simultaneously portray a different age, convey a different emotional state, and set it within a different location as they act out the donning of a jacket, then the acting had become complex (50). Kirby quickly cautions against assigning a value judgement, noting that simple acting "may be very good, whereas complex acting is not necessarily good and may, indeed, be quite bad" (49).

Kirby's not-acting–acting continuum is a useful tool in determining the amount of acting that occurs in a high-fidelity simulation performance amongst the primary participants: actors who perform as simulated patients, simulation technicians and facilitators, and the healthcare learners. There is little doubt that the actors performing as the simulated patient are acting (after all, "simulating" is part of Kirby's definition of acting). They wear costumes that help the learner-spectators, and the learner-performers see them as their character. This may include a hospital gown for inpatient situations or everyday clothes that suggest the simulated patient's socioeconomic status or their emotional state. For example, actors performing as a depressed simulated patient are encouraged to wear hoodies because the drawstrings give the actor

[17] Kirby's example of "successful acting" suggests similarities to J.L. Austin's emphasis on felicitous performatives, a concept that will be explored in the next chapter.

something to fidget with to show anxiety (of course, the shapelessness of the hoodie makes it an almost archetypal clothing item to show depression). If the actor performing as the simulated patient only fidgeted with their drawstring during the simulation performance – and did nothing else – it could still successfully convey depression to the healthcare learners, but it would be classified as simple acting. Whereas Kirby cautions against assigning value judgments to simple and complex acting, HealthCAST reworked its method of articulating graduate student expectations because some actors were completing their requirements with scenarios that only required simple acting (see Chapter Two).

However, HealthCAST usually supports scenarios that require complex acting. One HealthCAST-supported scenario takes place at the simulated patient's dilapidated home. The simulated patient is in their eighties and lives paycheck to paycheck, so actors who perform as this simulated patient often wear inexpensive clothing with stains or rips to further embed themselves in the multiple matrices that suggest a low socioeconomic status (boarded-up windows, fake insects and empty fast-food bags strewn around the space, etc.). They wear makeup, powder their hair, and use vocal and physical techniques to suggest that they are elderly. Furthermore, the simulated patient lacks medical knowledge and is suspicious, if not outright terrified, of the procedures carried out by the healthcare learners. This easily places the actor performing as the simulated patient in the category of complex acting because they draw upon both physical and emotional acting to portray their character.

Few would deny that actors performing as simulated patients are acting, and a deeper look at their acting techniques will be discussed below. However, are the simulation technicians, the facilitators, and the healthcare learners also acting? If so, where do they fall on Kirby's continuum and how does classifying them on this scale help us understand simulation pedagogy?

Simulation Technicians

Simulation technicians slide up and down Kirby's continuum depending on the needs of the simulation scenario. Most simulation performances at THSSC use manikins to simulate the patient. The simulation technician sits in a control room during a simulation performance and remotely operates the manikin and other relevant equipment in the simulation theater. For example, they can adjust the vital sign readouts on the patient monitor to match the healthcare learners' interventions. Depending on the manikin, they can program it to simulate relevant physiological characteristics such as its heart and respiratory rates, constricted or dilated pupils, seizures, and various bodily sounds (lung, heart, bowel, etc.). Sometimes, simulation technicians can preprogram expected changes to the manikin to easily facilitate those transitions during the performance. As they are manipulating computer software, the simulation technicians are also performing as the patient with their voice paging into the simulation theater from the overhead speakers. Scenarios may require the simulation technician to act as if they are upset, angry, scared, confused, in pain, and other emotional states. They engage in conversations with the healthcare team as they are carrying out their interventions. However, there are almost always moments during a simulation performance where the healthcare learners will ask the technician for certain information they cannot glean from the manikin. The simulation technician must drop character, respond to the healthcare learner's question as themselves, and then resume the performance in character. Throughout the simulation performance, the technicians reference both the faculty-written simulation template and the facilitator for guidance on how to respond to the healthcare learners' interventions and how to adjust the manikin or the patient monitor to provide the participants with the information they need to proceed with their care. Sometimes,

the technicians need to engage in a conversation with the facilitator that the healthcare learners cannot hear. This may lead to a drop in the dramatic tension as the healthcare learners wait for the simulation technician to respond (either as themselves or in character). Despite these pacing quirks, these simulation performances easily place the technicians on the simple to complex acting side of Kirby's continuum. This is especially notable considering that the technicians are not trained actors, nor were they hired for their acting abilities. Some technicians, concerned about the limitations of their acting ability, turn to technology to help them portray certain characters, especially when the character does not match their age or sex. At THSSC, some of the technicians employ electronic voice changers to help raise or lower the pitch of their voice to match the character they are portraying.

Simulation performances that use actors to simulate the patient usually push simulation technicians to the not-acting end of Kirby's continuum. They may page into the simulation theater to provide information that can help propel the performance forward. Their voice, and the information they provide, is certainly "part of the *informational* structure of the narrative," but they remain outside of the matrices of the performance and are certainly not part of its dramatic narrative (i.e., no one asks where the voice is coming from during the simulation; it is treated as a convention of this performance genre) (Kirby 44, emphasis added). Furthermore, simulation technicians may oscillate between non-matrixed acting and simple acting. They may perform as an operator who passes on the call to the doctor or pharmacist (performed by the facilitator in an example of simple acting). One HealthCAST-supported scenario used to require the simulation technician to enter the simulation theater as the doctor, declare that the healthcare learners' resuscitation efforts had failed, inform the actor performing as the simulated patient's parent that their child had died, and then pretend that they received a page to attend to another

patient. This simulation scenario was later rewritten to better align with the scenario's learning objectives; dealing with an unempathetic doctor was not one of the student learning objectives of this scenario and only added to the already difficult challenge of comforting an emotional parent who had lost their child. The simulation technician is no longer asked to perform as the doctor in this updated version.

Healthcare Learners

Schechner is clear: "all actors are performers, but not all performers are actors" (208). He observes that "many everyday-life performers – such as clergy, nurses, and police – are clearly marked by special clothes and insignia, prescribed tones of voice and professional vocabularies, and the visible exercise of authority" (Schechner 207). These qualities, however, are not natural but learned, and simulation is just one significant tool to impart these characteristics to nascent health care providers.

Healthcare learners, within simulation pedagogy, are not considered to be acting (even though they are performing). Simulation helps to close the gap between novice and expert. The healthcare learners are novices, so they apply their skills in a safe environment, possibly make mistakes without actual consequences, and learn from the experience. They are healthcare learners engaging in experiential learning. Alex Mermikides notes that, at the institution where she completed her dramaturgical analysis of simulated patient performances, instructors frequently advised their students "not to act but to 'be themselves': 'this is not acting' or 'we are not evaluating your acting skills' (81). I have heard similar advice at THSSC.

However, using Kirby's continuum, it is clear that the healthcare learners are also engaging in complex acting. Simulation centers, such as THSSC, are designed as three-

dimensional reproductions of various hospital environments. THSSC requires all participants to adhere to a specific dress code. For the healthcare learners, this means that they must wear their lab coats and scrubs or their School of Nursing polo shirts and black slacks. This is, for all intents and purposes, a costume that suggests to their simulated patients their role as a healthcare worker. Of course, their costume would not convey the same meaning at an actual hospital as it does within the walls of THSSC. The setting and costumes could suggest that the healthcare learners fall under the symbolized matrix or received acting categories. However, simulation demands more from the healthcare learners than simply standing in the corner whilst wearing their costume.[18] They must act the part, even if that part is a future version of themselves. Schechner observes that theatrical performances take place between a state of "not me … [and] not not me" (18). The actor is not their character but, at the same time, they are not *not* their character. Similarly, healthcare learners perform within this liminal space. They take on the role of a fully trained, licensed, and employed healthcare provider caring for a real patient even though they are university students practicing their skills with trained actors from the theater department. Yet, they must still apply their knowledge and skills to the situation, respond appropriately to their peers and to their patient, and critically solve any problems that may arise during the simulation performance. This suggests that the healthcare learners are not only acting but are doing so on the complex acting end of Kirby's continuum.

Perhaps the clearest example of healthcare learners acting comes from the very end of the simulation performance. When the simulation technician announces that the simulation has

[18] Technically, at THSSC, healthcare learners *can* stand in the corner, say nothing, and still "pass" the simulation. I once overheard a facilitator telling their class that this was indeed possible but not recommended since it wastes a valuable opportunity to grow as a healthcare provider. The majority of simulations at THSSC are not graded and are designed to offer participants a safe space to apply their skills, possibly make mistakes, and learn from their experience.

ended, the learners often drop character, i.e., the professional identity that they adopted during the simulation performance ceases. They sigh with relief, high-five each other (and sometimes, awkwardly, the actor performing as the simulated patient who is remaining in character) and proceed to exit the simulation theater.

Of course, it should be noted that not every healthcare learner fully engages with the simulation performance. Erving Goffman identifies a binary between sincere and cynical performances in everyday life. Sincere performances occur when the performer believes in their own act and the audience "is also convinced in this way about the show he puts on – and this seems to be the typical case – then for the moment at least, only the sociologist or the socially disgruntles will have any doubts about the 'realness' of what is presented" (17). The cynical performer does not believe in their own act, but the audience might, as in the case of a confidence artist (Goffman 18). HealthCAST also finds sincere and cynical performers during its simulations. Evaluations completed by the nursing students following the conclusion of a simulation have revealed a handful of individuals over the years that admit they cannot believe that the actor before them is a patient. This does not come at the fault of the actor's performance, their use of costuming and makeup, or the setting. Instead, they cannot accept the reality created within the frame of the simulation performance. These nursing students, however, still participated in the simulation even though they could technically stand in the corner of the simulation theater for the entire duration of the performance without any consequence to their grade. Goffman would call this kind of performance cynical but, despite the negative connotation, he acknowledges that an actor may perform cynically for sincere reasons (ibid.). The nursing student may still want to receive feedback on their clinical aptitude and

communication skills. They may even want to preserve the appearance of committing to the reality of the simulation because their peers seem to have this ability in their own performance.

Representing Reality in Performance

The previous chapter discussed the efforts made by simulation producers to immerse participants into a realistic setting. It comes as no surprise, then, that simulation participants are also expected to perform realistically. What may come as a surprise to those not versed in performance history is that realistic acting is a relatively new style. Theater historians typically trace the roots of acting to the 6th century BCE when the Greek performer, Thespis, stepped forward from the chorus and performed as someone other than himself (Brestoff ix). Realism, as an acting style, is typically attributed to the Russian actor and director Konstantin Stanislavsky, who first set forth his "System" in 1909, almost 2,500 years after Thespis (Brestoff 28). I emphasis the relative newness of realistic acting because – given its ubiquity in Hollywood films, American theater, and network television – it can be easy to forget that it is both a style and a choice, i.e., performance does not always require nor desire its actors to perform "realistically."

Simulation in healthcare education's desire for realistic acting makes sense, however, in that this style is uncoded. Spectators watching a realistic performance are not required to possess "special knowledge of a theatrical code" such as ballet, Japanese *noh*, or Indonesian *wayang kulit* because its characters behave and experience emotions "like those of 'real people'" (Schechner 176). Sick patients do not express themselves through dance or shadow puppetry; to represent illness in those styles would run counter to the experience desired by the simulation producers. Likewise, melodramatic, or over-the-top acting that lacks a sense of authenticity, is also

undesirable. On the other hand, behaviors and emotions are themselves coded based on the interpretive communities we belong to. Here, I refer to two related concepts. The first is that our idea for what constitutes "realistic" or "authentic" acting is fluid. Schechner observes that films from earlier decades may come across as stiff or stilted compared to the movies of today. However, those actors are following the same basic principles of realistic acting as actors performing today. The second is that the authenticity of a performance, especially one that seeks to represent illness, is coded based on one's own community. David Morris, for example, observes that "we come to understand our pain only within specific cultures and subcultures," that our experiences are "to a large degree, learned," and that the language we use to describe this sensory and emotional experience varies throughout different communities (143). In fact, pain may be "unsharable" [sic] because it "does not simply resist language but actively destroys it, bringing about an immediate reversion to a state anterior to language, to the sounds and cries a human being makes before language is learned" (Scarry 4). Therefore, healthcare providers looking for "certain well-recognized social actions and signals" to inform them if their patient is in pain may misinterpret behaviors learned from social or cultural influences other than their own (Morris 143). A memorable example that brings these two concepts together comes from an interprofessional simulation focusing on end-of-life decision making. The actor performing as the simulated patient was representing the grief and agony of ending life support for a loved one by sobbing throughout the simulation performance. One of the healthcare team members was unaffected and later, during the debriefing session, complained to the actor that their emotional performance prevented them from doing their job. "I've worked with a lot of patients in this situation," claimed the healthcare learner, "and no one gets that emotional." "Well," responded the actor, "then you haven't met a patient like me yet." Later, it was noted that the healthcare

learner was from a community where public displays of pain and grief are frowned upon; encountering a different set of expectations for handling emotions in public was an important lesson for that healthcare learner.

Stanislavsky's System – and the countless permutations it inspired – provides actors with various tools to agilely adapt one's acting processes to fit the needs of the performance. Stanislavsky himself was constantly revising his System, discarding techniques that no longer led to the desired results.[19] His ultimate goal – a goal shared by all realistic acting schools – is to help actors "identify deeply with the character – to such a degree that the actor's own self is fused with the self of the character" (Schechner 179). This means that no two performances of a character are the same. Rather, actors are cast because of the unique qualities they bring to their parts.

Simulation pedagogues Cathy Smith, E. Grace Gephardt, and Debra Nestel recognize that understanding how actors are trained "can inform and guide SPS in role portrayal" (362). They published an article that explains (quite succinctly and accurately) many of the basic principles of Stanislavsky's System for a healthcare audience. I will also briefly describe some of the various foundational techniques for realistic acting as it will help support the arguments I make in an upcoming section regarding simulated and standardized patient programs. Of course, not all SPs are actors and not all actors are trained using Stanislavsky's System. However, the System has served as the foundation for all other realistic acting schools since Stanislavsky's Moscow Art Theater started touring their productions worldwide in the early 20th century and is thus a useful foundation to understand how many actors approach their roles.

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[19] Stanislavsky is often quoted as saying "Create your own method. Don't depend slavishly on mine. Make up something that will work for you! But keep breaking traditions, I beg you." However, this quotation is never cited and is therefore included here as an apocryphal curio that supports how countless teachers have taken his basic ideas and crafted them anew for their students.

One of Stanislavsky's greatest insights was that forcing emotions leads to inauthentic performances (Brestoff 31). Actors are not taught how to "cry on command;" instead, actors learn how to approach emotions indirectly through a variety of means. This includes techniques such as the *magic if*, which invites the actor to imagine what they would do if they found themselves in their character's situation. In order to pursue this magic if, actors must learn how to properly analyze the script for the *given circumstances*, which is, to put it simply, the who, where, and when of the play provided by the playwright. Furthermore, characters are motivated by *objectives* (sometimes referred to as *motivations*, *intentions*, *goals*, or *wants*) that they pursue through the course of the play. Sometimes, these objectives are clearly stated by the character; sometimes, the actor (alongside their director) must apply interpretive strategies to identify their character's objectives. Regardless, the characters typically face *obstacles* standing in the way of the thing(s) they want which creates *conflict* or *drama*. Characters overcome these obstacles by playing *actions*, which are always expressed as transitive verbs rather than as emotions, qualities, or moods (Caldarone and Lloyd Williams xvii). The brilliance of the *actions and objectives* approach is that it eliminates self-centered acting and provides greater consistency from performance to performance without the risk of the performance feeling rote or stale. Actors no longer wonder whether their performance is "sad" or "happy" or "sexy" enough. They no longer find themselves forced to play a lie because they had a bad day but now must act joyful (Bruder et al. 16). Instead, they place their focus on their scene partner(s) and perform actions to overcome obstacles and achieve their objectives. For example, an actor may say that "Romeo *entrances* Juliet" rather than saying "Romeo is in love with Juliet."[20] The actor can "entrance" or "woo" or "adulate" Juliet regardless of how they feel on a given day. Furthermore, the verbs

[20] I fully acknowledge that applying Stanislavsky's System to Shakespeare is not always the strongest choice. I use this example because *Romeo and Juliet* is a well-known play.

themselves carry with them certain emotional and tonal connotations that may inspire the actor without directly pursuing that emotion itself. "To woo" may strike one actor as less serious of an action than "to entrance." Altogether, Stanislavsky's System promises that "if you use your imagination [magic if] to enter, with belief, the imaginary circumstances of the play, and if you follow the correct objectives and actions through the play's length, then the proper emotions will follow you and inspiration will more likely come" (Brestoff 51).

The actions and objectives model is easy to understand but difficult to practice, even for trained actors. We tend to speak of characters and their stories in emotional terms. This is true for simulation in healthcare education. For example, as I mentioned in Chapter Two, we developed an "emotional trajectory" for our end-of-life scenarios that charts the course of the character's emotional state as they interact with the healthcare team. This is because the healthcare faculty desire particular emotional responses and cues depending on how the interprofessional team behaves during the simulation performance. Simulation faculty and staff often describe what they want from the actors using emotional language, such as "the character should have a blunt expression" or "they're really tearful, sad, anxious, and upset." This can lead to drastically different interpretations of a character and how they may express their emotional state. What anxiety looks and feels like to one actor will likely be different than how it looks and feels to the nursing faculty. It can also lead to disappointment when the actor's interpretation and performance do not align with the expectations of the faculty. During the summer of 2021, we started to articulate the character objectives for our HealthCAST actors. As of this writing, we are still in the very early stages of articulating character objectives for all HealthCAST-supported scenarios and the ones that have received this additional information are simple. For example, one patient wants a diagnosis for their headache and hopes to receive

medication. These simple objectives, however, have already shown promise. The actors seemed to appreciate the clarity, and the faculty seemed pleased with the performances it yielded. We intend to update all scenarios with this practice, and it will be fascinating to see how we articulate more complex objectives and whether they lead to greater consistency from performance to performance while still allowing for the actors to respond spontaneously to the learners.

Of course, Stanislavsky was mostly working with scripted material when he developed his System. The actors know not only their own dialogue, objectives, and actions, but those of their fellow scene partners. The performance becomes a choreographed sequence of events that changes slightly from night to night as actors respond to each other's choices on stage and the moment-to-moment feedback from the audience (such as laughing, crying, shifting in seats, coughing, or snoring). "This requires a great deal of bravery and will due to the fact that you can never know exactly what is going to happen next. You must learn to embrace each moment and act on it according to the dictates of your action" (Bruder et al. 40). However, these slight variations from performance to performance do not approach the degree of spontaneity and unpredictability that is found in improvisational performances.

Simulation Is (Mostly) Improvised

Simulation performances in healthcare education are mostly improvised. The free-wheeling nature of improvisation often lends it a non-scholarly connotation, with many academics viewing improvisational theater as merely "warm up exercises, charade like games, or 'garage band' type performances" (Leep 2). To be fair, many acting teachers *do* use improvisational theater games to free their students from their inhibitions and to nurture spontaneity. However, improvisational

theater has many more uses and definitions. For example, some directors use improvisation as a rehearsal technique to help actors connect with their character and the world of the play. For HealthCAST, improvising the potential simulation performance often takes place in the final rehearsal session, which I refer to as "simulating the simulation." There are many improvisational theater groups that use improvisation as a performance in and of itself to compete or to entertain audiences (think *Whose Line is It Anyway?*). Some artists, such as Augusto Boal, use improvisation as a means to affect social change. Some institutions have attempted to use Boal's Forum Theater in their healthcare simulations. His work, and its promise for simulation in healthcare education, is discussed in detail in the next chapter.

In her book on improvisation, Jeanne Leep provides a good definition of improvisation by limiting her study to groups that:

> 1) use improvisational forms of performance, 2) are performed primarily by actors with input from the audience primarily coming in the forms of suggestions rather than actions, and 3) are performed by groups whose primary goal it is to entertain and engage the audience through humorous or thought-provoking entertainment. (2)

Leep's multi-part definition demonstrates obvious differences between improvisational performances and simulation performances. All simulation performances are, to some degree, improvised. Some scenario authors anticipate questions from the learner to the simulated patient and provide the latter with scripted responses. Or, if an actor is performing as a standardized patient, the simulation producers will provide them with a highly detailed script full of checklists and tables in an effort to provide consistent responses to all examinees.

Yet, the improvisatory nature of simulation performance does not mean it follows the *form* of an improvised performance. Improvisational theater is often categorized into three formats: short-form, long-form, and sketch-based. Most audiences are familiar with short-form improvisation, which uses audience suggestions and games to create short, amusing scenes. Long-form stitches several games together to create an evening of theater, with actors editing their performances based on discoveries from previous games. Both short-form and long-form improvisation share in simulation's ephemerality, i.e., "the audience is aware that what they are seeing is being created for them before their very eyes. No one has seen this before, and it is quite possible that no one ever will again (Leep 91)." Sketch-based improvisation, on the other hand, uses improvisation to create scenes that are crafted through a rehearsal process. The content of the performance takes precedence to the process of creation; therefore, the audience has little influence on the performance itself because they are watching a finished product (Leep 89, 111). Of course, simulation performance is not a finished product – and the audience/performers deeply affect the trajectory of the simulation performance – but it finds its closest parallel in sketch-based improvisation.

The second definition provided by Leep demonstrates further daylight from improvisational forms of theater and simulation performance. Short-form improvisation shows are often generated by the audience offering suggestions to the performers, such as the location of the scene and certain qualities or traits of the characters who inhabit that space. This is the extent to which the audience contributes to the scene; the actors take these "given circumstances" and create a scene from it. However, in simulation in healthcare education, the faculty have established the given circumstances. The qualities and traits of the simulated patient are largely predetermined by the facilitators and honed through rehearsals prior to the simulation

performance. However, despite these predetermined circumstances, the "spectators" are far more involved with the performance than the audience at a short-form improvisational show. Fischer-Lichte's perceptual multistability demonstrates that the learner-spectators are simultaneously learner-performers, which means they do more than merely suggest how the performance could go – they directly influence the course of the performance through their words and actions.

Finally, while simulations can be entertaining (we have had many simulations run longer than intended because the facilitator was caught up in the drama of the simulation), simulation is not meant as entertainment. Simulation performance is meant to educate or evaluate learners; any entertainment value is a secondary benefit of the experience.

Improvisation, somewhat counterintuitively, has rules. The most infamous rule in improvisation is for actors to always say "yes, and …," i.e., to always accept their partner's input and then build off their contribution to further develop the scene. Improvisation works best when scene partners try and make their scene partners look good. Blocking the input of one's scene partner by "denying the reality created by your peers, forcing your own ideas, saying no to an idea on stage, or just as bad, saying 'yes, *but*'" kills the momentum of the performance (Leep 15). However, simulation performances often require blocking to prevent learners from going down the wrong path. The non-learner performers (simulation staff voicing manikins, HealthCAST actors) know the learning objectives for the healthcare learners, as well as the desired outcomes, and are tasked with trying to keep the performance on track, which often requires blocking. For example, one HealthCAST-supported scenario requires the actor to simulate a positive tuberculin skin test. Our low-budget solution has the actor applying red makeup to their arm, placing a plastic pellet in the center of the makeup, and covering it with a

clear bandage known as Tegaderm. Most of the time, the learners accept this as the reality of a positive skin test, but we have had instances where the learner asks the actor "did you put this bandage on?" The actor, in order to maintain the reality they have created and to keep the scene on track, is forced to respond "no, this is my skin."

And yet, there are elements of improvisation at play in simulation performances. Leep argues that "learning from others is a universal aspect of improvisation, and this involves listening" where "everyone involved is feeding off the talents and skill of others by listening and truthfully responding to what has been said" (14). This is an integral element of simulation performances designed to educate learners and a hallmark of the simulated patient model approach. Again, the non-learner performers know the learning objectives of the simulation scenario and the general shape intended by the facilitators. However, the learners themselves inject a significant element of the unknown, requiring the non-learner performers to listen and respond truthfully and spontaneously. This is why the debriefing sessions are so important, because it allows the learners to process their experiences.

The degree to which simulation performances are improvised is important, especially when producers consider whether to hire actors to perform as simulated patients or standardized patients. The latter modality permits less improvisation than the former and serves as the subject of our next section.

Simulated and Standardized Patients

The practice of using actors in the education and evaluation of healthcare students began in 1963 when Dr. Howard Barrows invited actors to perform as "programmed patients" for his neurology clerks at the University of Southern California. The local press scoffed at his idea, running

headlines that suggested Hollywood had invaded the medical classroom with "scantily clad models" spicing up the lecture hall (Hardee and Kasper 79-80). However, Barrows' idea quickly gained legitimacy in medical schools across the country and is now a common modality at simulation centers. There has been some disagreement on what to call actors who perform as patients. "Standardized patient" and "simulated patient" are often used interchangeably but, over the past decade, there seems to have emerged some agreement that the terms refer to different purposes. Simulated patients are actors who are used to *train* learners and provide an experience that feels organic, unscripted, and realistic. Standardized patients are actors who are used to *evaluate* learners and must, therefore, provide an experience that is objective and repeatable for fair assessment.

The notion that a performance can be standardized is highly problematic from a performance studies perspective. Semiotician Marco de Marinis argues that theater performances can only achieve partial duplicability because, in a manner akin to the liveness debate discussed in Chapter Three, the "performance phenomena [are] communicated to a collective addressee, the audience (physically present at the reception), at the very moment of their production (transmission)" (51). Because a method of capturing a performance in its entirety – from the dramatic text to the acting style and choices to the audience's reaction to each moment – has not been created yet, we cannot fully recreate a theatrical performance from Shakespeare's era, nor could we fully recreate last night's performance of a Broadway musical (ibid.). This leads de Marinis to assert that the "theatrical performance is […] unrepeatable, insofar as it is not entirely reproducible (as is the case with film, paintings, or novels), but that its nevertheless *usually* possible to replicate it in part" (ibid., emphasis in original). These examples (films, paintings, and novels), on the other hand, allow for "technical reproducibility" because

someone can create duplicates from the original source (or from other duplicates), but the *experience* of encountering that work remains unreproducible (de Marinis 52, emphasis added). This is because the individual viewing the work will be changed with each subsequent encounter, even though the text of the novel or the images of the film remain the same throughout time. The mood of the viewer/spectator, their personal history, the context in which they encounter the work, will have changed from the first time they encountered the piece. The same occurs in simulation performances. Each set of healthcare learners that enters the simulation theater brings with them a unique set of personal histories, skill sets, and experiences that inform how they interact with the actor performing as the simulated patient *and* how they engage with their peers. Likewise, the actor performing as the simulated patient also possesses a personal history, skill sets, and experiences that informs how they interpret their character and their interactions with the learners. It is these qualities that render theatrical performances "non-reproducible" (ibid.). Whether the performance is theatrical or a film-viewing, it is still comprised of "a unique, unrepeatable constellation which can only be determined and controlled to a limited degree. The created event remains unique as is inevitable when actors and spectators are confronted with each other in their various tempers, moods, desires, expectations, and intellects" (Fischer-Lichte 35). This means that the facilitators, too, cannot standardize their experience of observing and evaluating the learners. For example, they may start to fatigue and lose focus after several hours of watching the same scenario play out but with different learners.

To be clear, I am not arguing that simulation in healthcare education must get rid of standardized patients. Rather, I am using this brief section to urge simulation practitioners to understand that even the most "standardized" patient is going to have variations from one performance to the next. Furthermore, I believe strongly that standardized patient approaches

should be used very sparingly and only in simulations that are designed to evaluate learners, not educate them. Using the standardized patient model to educate learners could impart problematic lessons, such as the idea that simply speaking the correct string of words will yield the result they want. For example, a learner could simply relay bad news to a standardized patient using the SPIKES model (see Chapter Two) without any empathy behind the words. The standardized patient would have to provide a "positive response" to the learner because the words were correct and followed the SPIKES template. A simulated patient, on the other hand, would have the permission to respond accordingly to the lack of empathy. The words are not enough; it is the performance behind the words that matters. Using standardized patients for educational rather than evaluative purposes, opens this modality up to the criticism that it simply teaches the simulation of empathy rather than truly creating empathetic care providers. I will address this argument further in the next chapter.

Representing Healthcare

Chapter Two described how scenarios are written and this chapter has, so far, focused on the simulation performers and how they represent their roles (simulated patient, future nurse, etc.). However, I have yet to discuss the stories themselves and how the subjects they represent contribute to the development of the learners' professional identity. This delay is somewhat appropriate. Simulation in healthcare education tells stories but primarily as a vehicle to deliver learning objectives. The story is, at best, a secondary characteristic. A simulation scenario is never a "story for story's sake." Rather, they are always tied to learning objectives (which is why, as mentioned above, simulation performances in healthcare education are not art). At worst, the story is an afterthought. I once attended a presentation at a regional simulation

conference that promoted a method to repackage the same narrative to suit different learning objectives. The abdication of creativity was, to my performance studies and theater sensibilities, nothing short of appalling. Thankfully, this method was not adopted at THSSC.

The stories that simulation producers choose to tell – and how they represent that story – can suggest certain skillsets they want their learners to develop and/or certain challenges facing the healthcare community. Throughout this dissertation, I have shared some storylines that HealthCAST supports at THSSC, including oncology, hospital discharge planning, a home visit with a patient who lives in poverty, and post-traumatic stress disorder. These are but a small sampling of what is produced at THSSC and what can be produced in simulation. Here are just some storylines pulled from a handful of published articles as examples of other narratives experienced by healthcare learners at other institutions. I share these to avoid issues of confidentiality (as explained in the introduction of this dissertation) and to demonstrate how other simulation producers are using simulation to address topical concerns facing their communities.

Jessica Doolen and her team at the University of Nevada – Las Vegas developed a scenario with SPs portraying patients with bipolar disorder, anxiety, and schizophrenia, in part, because "the stigma of violence and the unpredictability associated with mental illness creates added anxiety for nursing students about communicating with and assessing patients" with these disorders; simulation, then, can "ensure nursing students gain necessary clinical mental health experience and skills" (2). Angela Northrup and her colleagues at Pace University developed a scenario centered on poverty to help their learners "deliver equitable and effective care. When nurses possess a negative attitude toward people living in poverty, this can negatively influence patient care" (83). Elizabeth Knight from Oregon Health & Science University School of

Nursing and Allen Prettyman from the University of Arizona developed a simulation designed to increase nurse practitioners' ability to provide healthcare to rural patients via telehealth in a scenario that anticipated the need to conduct many appointments via telehealth during the COVID-19 pandemic (which is the topic of the next chapter). Beth Martin and Betty Chewning at the University of Wisconsin used standardized patients to "evaluate the impact of enhancing pharmacist consultation skills" regarding tobacco cessation because studies showed that "fewer than 5% of patients visiting community pharmacies reported being asked about tobacco use by a pharmacist" (320, 319). Similarly, an impressive collaboration between eight universities used simulation to address a perceived gap in training medical students to engage their patients in weight loss counseling. From the simulation itself, they observed that "many clinicians feel uneasy broaching the topic of weight with their patients" because the subject is "personal and may even feel judgmental to the patient and provider" (Ockene et al. 6-7). In many of these articles, the story itself is only briefly summarized; the bulk of the article involves the simulation producers' methodology, preparation, and evaluation of the simulation event.

Once the story is being told within the performance itself, other issues may emerge. For example, the nursing faculty at THSSC have noticed that many learners will cling tightly to checklists or questionnaires if they are provided to them prior to the start of the simulation performance. Instead of engaging with the simulated patient, the learners instead ask questions verbatim from the checklist, which can take up the entire time allotted for the performance. This happens even if the learners are given a completed form and told that the simulated patient filled it out before they arrived. For many learners, adhering to a script is much more comfortable than actually engaging with another human being on an empathetic level. This can be especially

frustrating since simulation "is often used to develop empathy and empathetic behavior in medical, nursing, and allied health students" (Bearman et al, 308).

The stories created by the nursing faculty (in the form of a scenario) and produced as a simulation performance (alongside the post-performance debriefing sessions) provide learners with experiences that forms part of the learner's *narrative identity*. As Richard Kearney explains,

> When someone asks you *who* you are, you tell your story. That is, you recount your present condition in light of past memories and future anticipations. You interpret where you are now in terms of where you have come from and where you are going to. And so doing you give a sense of *narrative* identity that perdues and coheres over a lifetime. (4, emphases in original)

These experiences – and the stories developed from the simulation activity – are shared by the participants and establishes a community amongst the learners. Furthermore, these stories are part of the overall curriculum, meaning that they are repeated every year, expanding the community of healthcare learners and providers who have experienced these narratives.

This positions simulation as a powerful medium to evoke change. Stories have the power to shape and reshape our experiences; they can even (re)shape reality itself (Bruner 6-7). Philosopher and pedagogist Jerome Bruner argues that stories are "the coin and currency of culture" because it is through our shared myths, folktales, and other stories, we can "read each other's minds," i.e., organize ourselves "around the dialectic of expectation-supporting norms and possibility-evoking transgressions" (16). Philosopher Paul Ricoeur pushes this idea further,

writing that "the practice of narrative lies in a thought experiment by means of which we try to inhabit worlds foreign to us […] a provocation to be and to act differently" (249). In other words, stories are what unite interpretive communities and what gives simulation experiences their ability to affirm or reimagine the status quo. What simulation producers decide to represent – and how they choose to position that representation within a reproduced setting – can have powerful reverberations on how participants view themselves, their patients, and their place in providing care. Likewise, the stories that go untold can be just as powerful and just as devastating to the healthcare community. Sometimes, it takes multiple crises to bring these issues to a head.

PART TWO: TOWARDS A NEW NORMAL

In March 2020, the world stopped. COVID-19, a highly infectious and deadly respiratory disease, had spread across the globe at a blistering pace. As case numbers and deaths rose, billions of people found themselves under stay-at-home orders. Businesses closed. Sporting events and performances were cancelled. Travel ceased. Campuses shut down, forcing educators to quickly revamp their courses to suit an online format. As the pandemic stretched into the summer months, a new normal was established. Online delivery services became incredibly popular. Masks and social distancing were imperative anytime you entered a public space. The videoconferencing program, Zoom, became a household name overnight due to its ubiquity for work and for connecting with family and friends.

Unfortunately, the pandemic has proven hard to predict. When I submitted a draft of this dissertation in June 2021, vaccine availability was increasing with each passing day and the pandemic seemed to be entering its final phase. Hawaiʻi dropped its mask mandate for outdoor activities. Tourists were returning to the islands. Businesses had mostly re-opened, and schools planned on returning to in-person teaching for the fall. However, the Delta variant of COVID-19 started to sweep across the world and Hawaiʻi was hit especially hard. Hawaiʻi experienced its highest numbers of COVID-19 cases and deaths in August and September of 2021 than at any other point in the pandemic. Hospitals across the State started reaching, and then exceeding, capacity. Mortuary trailers were deployed when spaces at the morgue ran out. Some businesses and educational institutions started mandating vaccines or negative COVID-19 tests for its employees and patrons. As the numbers climbed, the City and County of Honolulu announced the "Safe Access Oʻahu Program," which required customers to show their vaccine card or proof

of a negative COVID-19 test to enter any of the island's restaurants, bars, gyms, and other establishments (HNN Staff). Sadly, this resurgence of COVID-19 through its Delta variant is not limited to the United States. Several countries, such as India, Brazil, and the United Kingdom, have seen comparable spikes of case counts and deaths.

Since we are still dealing with the pandemic and its fallout, I initially intended to discuss the impact of COVID-19 on THSSC and simulation performance as an appendix entry. The transition to online learning challenged the degree to which immersive practice and liveness is needed to produce a successful and efficacious simulation experience and thus serves as an interesting contribution to the discussions found in Part One. However, when the world initially shut down, the "COVID pause" was seen by many as a once-in-a-lifetime opportunity to reflect and reimagine the status quo. This need for collective introspection was only heightened when video of George Floyd's murder by a Minneapolis police officer kneeling on his neck was spread across the world. Massive protests around the globe called for changes to combat systemic racism, which was also manifesting in anti-Asian attacks spurred by hateful rhetoric by political officials in the highest offices, including the former President of the United States, who often referred to the coronavirus as the "Wuhan virus" or "China virus" (Salcedo). The call for self-reflection and re-envisioning the status quo parallels simulation pedagogy, especially when it is used as a model *for* reality, rather than as a model *of* reality.

This section contains two chapters. Chapter Five shares how THSSC adapted its scenarios for online learning and how the necessity to persist during the pandemic affected many of the themes discussed in previous chapters, including immersivity and liveness. Chapter Six, in a small and imperfect way, tries to reflect the turbulence we all felt during the pandemic by disrupting the flow of the previous chapters with the introduction and discussion of several new

and challenging theoretical concepts. These concepts respond to some of the criticisms levelled at simulation pedagogy. Although these criticisms have existed long before the pandemic, the call to reflection that occurred during the pandemic offers an excellent frame to address these concerns. Therefore, this chapter goes beyond an exploration of performance processes by reimagining how simulation in healthcare education can deepen its relationship with performance, performance studies, and other related fields to strengthen healthcare education and, ultimately, healthcare itself.

CHAPTER 5. THSSC AND THE PANDEMIC

It goes without saying that COVID-19 upended the status quo for everyone. In the spring of 2020, THSSC was forced to transition most of its simulations to an online format whilst cancelling a handful of interprofessional scenarios. The experience of adapting and producing online simulations led to some interesting observations that respond to many of the themes covered in the previous chapters, including immersivity and liveness. In this brief chapter, I share the strategies THSSC used to adapt simulation performances to Zoom and how those online performances respond to the perceived importance of immersivity and the co-presence of actor and spectator to create an efficacious learning experience. As of this writing, the pandemic has not subsided, and it remains to be seen if (and if yes, how) COVID-19 has permanently transformed simulation performance.

Adapting scenarios to an online modality happened very quickly with many processes occurring simultaneously. Most of the chosen scenarios were already supported by HealthCAST and THSSC determined that actors could still be effective despite performing online from their own homes. The THSSC staff worked together to simultaneously convert the chosen scenarios into PowerPoint presentations that conveyed the learning objectives, important information about the patient, and debriefing questions all while they were testing various livestreaming software to determine the best option for online simulation. They ultimately chose to use Zoom because of its ability to share screens and because it was already becoming familiar to a large user set.

Just as it was important to describe the experience of an in-person simulation performance in previous chapters, it is also important to devote a few sentences to the experience of a Zoom performance. Zoom requires users to log into a session by using a unique link or by

entering the "Meeting ID" and password. This latter feature was introduced shortly after the pandemic hit because of reports of "Zoombombing," i.e., where unwelcome users would log into a session to spew profanities or display inappropriate or graphic content (Lorenz). Once in the session, Zoom participants are displayed in thumbnails that are automatically sized to fit the user's screen, as well as the number of people logged into the meeting. All users have their names displayed in a bar at the bottom of their thumbnail. Participants can choose between "Speaker View," which automatically highlights and enlarges the video of the active speaker while reducing the size of the other participants, and "Gallery View," which displays all users in a grid of equal size; the thumbnail of the current speaker is highlighted by a yellow outline. Users can mute their microphones and turn off their cameras by using a menu of buttons on the bottom of the screen. Participants who are not using video are still represented by a profile picture (if already uploaded) or the first initial of their name. This means that, in Gallery View, your screen may display a lot of black squares with the users' initials or their profile pictures interspersed with participants who have left their cameras on. However, users can opt to "hide non-video participants" to make the Gallery View more user-friendly.

The transition to online learning was not without its challenges. The entire relationship between spectators and performers was upended. At THSSC, those two groups are physically separated during the performance but share space during the pre-brief and debriefing sessions. Now, *everyone* was separated and forced to engage in the simulation activity through an entirely mediatized experience. This meant that users had to have access to technology that could stream video and audio and that could run the Zoom software. Users also needed access to high-speed internet to avoid issues of lag or freezing (which meant that the participants were no longer sharing time with one another). Sometimes, users were kicked out of Zoom altogether due to

insufficient internet bandwidth. Participants also needed access to a quiet space where they could engage in the simulation activity without distractions. Zoom quickly added a feature to use "virtual backgrounds," which are short videos or pictures that appear behind the user. This was especially useful if users did not want to reveal their actual environment (and, for simulation purposes, to provide a setting for the performances). Furthermore, participants had to be careful about how they composed themselves within the video frame. Some participants used their smartphones to access and run Zoom, which meant they were observing the videos on a smaller screen than their peers using laptops or tablets. Participants had to ensure that they were framing themselves from the shoulders up; any wider, and it became difficult to discern facial expressions, especially on small screens. Furthermore, their cameras were fixed and lacked the pan-tilt-zoom features of the cameras used at THSSC. There was also only one angle, whereas THSSC always provides at least two different camera angles. All these considerations highlighted how THSSC was, in many ways, an equalizer for the learners since the technology to observe the simulation performances was provided by the center's infrastructure and managed by its technicians.

However, the learners adjusted rather quickly to the new modality, perhaps because the interpretive frame of Zoom (if not the program itself) was more familiar to them than the interpretive frame found at THSSC with its network of cameras, microphones, and performance spaces. In Chapter Three, I cited Auslander's (outdated) declaration that television is the predominant form of performance, but I believe it has been replaced by the smartphone and its ability to both access and create content to consume on a variety of platforms, such as Facebook, Twitter, Instagram, YouTube, and TikTok. As Schechner observes in a new chapter on social media for the fourth edition of *Performance: An Introduction*, people from every generation are

now creating, posting, and streaming content on digital platforms that simultaneously connects people to multiple social networks (beyond, say, the social network of "fellow nursing student" that used to only occur inside the physical classroom space) and allows them to "experience different personalities in order to construct/display different selves" (Schechner 285). Social media has eroded many (younger) users' concerns over sharing private details about their lives to the point that some can no longer differentiate between their "social media selves" and their "offline selves" (288). Like Stanley Fish's students engaging with the "poem" (see Chapter One), healthcare learners already have the tools at hand to learn from the livestreaming experience. Simulation shares social media's ability to (re)create, (re)shape, and (re)establish identities through performance.[21]

The rehearsal and performance processes were also adjusted to accommodate the transition to online learning. All rehearsals (which were now, essentially, technical rehearsals) were conducted remotely using Zoom to ensure that the actors knew how to use the program and that their video and audio quality was sufficient for the performance, along with the usual work of developing the character and understanding how to balance the learning objectives with the desired framework for the scenario. For the first few performances, the actors and I would log into a separate Zoom meeting to quickly ensure that everything was working as intended. The simulation technician would text me when the facilitator was ready to begin the performance and I would end the private meeting with the actor. The actor and I would then log into the Zoom session with the healthcare learners with our cameras already turned off. After a few months, Zoom added "breakout rooms." This feature allows the host to create separate "rooms" that are

[21] This may also account for the relative ease in converting simulation activities online during the COVID-19 pandemic. Learners already observed simulation performance from a screen, so those interpretive practices required only a small shift. Performing from one's house, while directly facing a camera and using new software (Zoom) only required a slight adjustment to the learner's interpretive strategy.

distinct from each other and the main room. Participants are still in the same meeting, but the breakout room function allows for small group sessions. Now, the actors and I meet in our own breakout room and move over to the breakout room with the healthcare learners whenever we are needed.

Oncology and HIPTCS – both described in Chapter Three – were among the scenarios chosen to be adapted for Zoom in Spring 2020. The oncology scenario required the most changes. The first three scenes, which normally take place in one of THSSC's intensive care units, balance physical interventions (such as administering medication) with therapeutic communication. THSSC recognized that this balance would be difficult to achieve over Zoom so the patient encounter for these first three scenes was replaced with prerecorded monologues that condensed key details about the patient's physical and emotional concerns. The fourth scene, which usually takes place in THSSC's apartment, could easily work from the actor's own bedroom. To promote fidelity and empathy, headshots of the actors accompanied the audio recordings used for the first three scenes. However, this presented another challenge to the simulation technicians because they had to create separate PowerPoint presentations specific to the actor performing as the simulated patient so that the audio and photos on the slides matched the actor performing live during that session.

The performances, much to our collective surprise and delight, were still highly emotional. Learners were visibly affected by the emotional weight of the scenario, their voices straining whenever the simulated patient asked them directly if they were going to die. We even noticed one learner leaning out of the frame to wipe tears from their eyes. The strangeness of the situation, the awkwardness of figuring out the new technology, melted away and allowed for genuine, empathetic interaction.

HIPTCS was arguably improved by the transition to online learning. As discussed in Chapter Three, HIPTCS usually suffered from the Honolulu/Hilo divide. However, with everyone logging in from their own homes, that distinction was erased. Informal conversations with the THSSC staff and with actors who had performed both iterations of HIPTCS agreed that the online version was the smoothest version yet. Learners were able to easily communicate with one another, and no one felt left out of the conversation. It is very likely that HIPTCS will be permanently converted to a telehealth format.

One of the interesting challenges to emerge from using Zoom was how the learners took advantage of the software's many tools, namely the chat feature. Normally, learner-spectators are not present in the same room as the learner-performers. There is no way for the two groups to interact during the performance itself. With Zoom, however, the chat feature is available to all participants. Learner-spectators could now post words of encouragement or even suggestions on how their learner-performer peers should interact with the patient. Likewise, the simulation technicians, facilitators, and the actors could privately message each other. This ability was a little worrisome because, at least once a year, a simulation facilitator would suggest that we equip the actors performing as simulated patients with earpieces so that they could cue them during the performance. We always refuse this suggestion out of concern that this technology would be abused by the facilitators and distract the actor from the performance. The private chat feature raised similar concerns. However, participants (regardless of their role) can minimize the chat window to ignore incoming messages.

The lessons learned from that disrupted spring semester allowed THSSC to successfully support the Hawai‘i Department of Health's Contact Tracing Training Program. Nearly four hundred contact tracers went through this program over the course of six weeks. The training

was divided into two sections: an eight-hour lecture followed by a four-hour simulation. The simulation used four breakout rooms, each with an actor portraying a simulated contact. Each breakout room would hold four contact tracing trainees but only one would interact with the simulated contact at a time. The actors would rotate rooms so that every trainee got to simulate a contact tracing phone call with a different person. This was a new challenge for the actors because they normally perform a certain simulated patient role, at most, four times during a semester with a week or so in-between performances. Now, the four actors hired to assist with the contact tracing training were performing the same patient role over a hundred times in less than two months. After the training program was over, the actors admitted that they found themselves relying on pat answers to certain questions or behaviors. These answers were not scripted – they could have chosen different wording or actions – but the repetitive quality of the training program meant they started to see common themes in how the trainee would approach the call. The long days and frequent simulation performances also meant that the actors and facilitators developed a stronger rapport than usual. They felt comfortable sending each other private messages to develop strategies on how to modulate the performance to address the perceived weaknesses or strengths of the trainee. Furthermore, the Contact Tracing Training Program introduced a new modality for the learners: lifelines. Whenever the trainee felt stuck or had a question, they could pause the performance and seek counsel from their peers and facilitators. The actor would turn off their camera and mute their microphone and wait until they were invited to resume the performance. The facilitators felt that this was a useful practice and continued offering lifelines in our interprofessional simulations that were converted for online delivery.

Feedback from all participants (actors, learners, facilitators, and simulation technicians) was that the online simulations worked best when the producers acknowledged the format, i.e., when the reproduction matched the modality. Simulation performances that asked participants to pretend they were in the same room often led to frustration. Learners no longer had the degree of agency enjoyed during in-person simulation performances. At THSSC, learners could assess their simulated patient with relative ease and manipulate the tools and machinery in the simulation theater at will. Online, however, the learners had to ask the simulation technician to cut between the patient encounter and the relevant slide(s) to show the patient's vital signs or pictures of their wounds. This was often clunky and disrupted the flow of the simulation. This was alleviated somewhat when the scenario focused almost exclusively on psychosocial and emotional issues. Even so, the inability to engage in eye contact or physical contact diminished the overall efficacy of the simulation since the participants are set up to perform as if they could engage in those behaviors. On the other hand, simulations that acknowledged the telehealth format tended to work the best. The challenges of eye contact, the inability to use physical touch or proximity, and the potential for technology issues are entirely reproduced from actual telehealth encounters; there is no need to pretend otherwise.

Returning to THSSC

Although there was some discussion of holding some HealthCAST-supported simulations in-person during the Fall 2020 semester, this did not occur until the Spring 2021. The tuberculosis home visit, oncology, and OSLE scenarios were selected to return to THSSC; the other simulations remained online. COVID-19 was still a threat, despite the general decline in cases and the widening availability of vaccines. Actors had to arrive to THSSC wearing a cloth mask,

and I would check their temperature at the door, log them on a sign-in sheet, give them a surgical mask and goggles, and then walk them to one of the debriefing rooms that had been cleared out for our use. Unlike previous semesters, we could not use the lobby or break room. I could not offer the actors coffee or snacks. We had to sit at least six feet away from another. Their makeup and supplies were laid out on a table and an air purifier droned under our conversations. Hand sanitizer flowed freely, and I wiped down all high-touch surfaces with alcohol wipes before we left the room.

The simulation participants had to engage in "dissimulation," i.e., "to pretend not to have what one has" (Baudrillard 4). Everyone (and this is true for almost all the simulation scenarios produced during the pandemic) pretended to live in a "pre-COVID world." The learners were instructed to ignore the air purifier in the room and to disregard the goggles and mask worn by the actor performing as the simulated patient. Even so, slips occurred. For example, a learner once thanked me for wearing my personal protective equipment when I performed as a simulated patient. The actors, on the other hand, had to ignore that the learners would sit at least six feet away from them, which would normally be seen as poor non-verbal communication.

The actors also had to modify some of their actions. For example, the actors were told that they could not actually cough during the simulation performance, even though everyone (including them) was wearing a mask. They also had to limit the amount of makeup they used to convey old age or an illness. The combination of mask and goggles limited the amount of visible skin, especially since the goggles tended to fog up during the simulation performance.

In some ways, though, the safety requirements led to better reproductions. For example, the tuberculosis home visit felt even more stark than what is described in Chapter Three. Most of the apartment's furniture is made of cloth and would be difficult to clean and disinfect

between performances. The simulation staff moved the cloth furniture to the back of the room and filled the performance space with a gray plastic card table and three stools with plastic cushions. These ugly plastic furniture pieces better conveyed the simulated patient's given circumstances than the wood-and-cloth couch and accent chair normally used for this scenario.

The efforts to combat COVID-19 – from online simulations to modified in-person performances – disrupted THSSC's ability to immerse its participants. The virtual backgrounds for online simulations were a poor substitute for the actual physical space, especially since the actors were the only ones who would use the photo during the simulation performance. Even when we could return to THSSC, the masks, goggles, and social distancing served as constant reminders of the pandemic despite the scenarios simulating a COVID-free world. However, the loss of immersivity and shared presence did not result in less efficacious simulation experiences. Actors performing as simulated patients could still deliver powerful, emotional, and raw performances that elicited empathetic responses from the healthcare learners. It challenged the definitions offered by Magelssen and Gaba in Chapter Three that simulation is, at its core, an immersive experience. Or perhaps the activities engaged during the pandemic must be redefined, i.e., is it still a simulation if the experience is not immersive?

Yet, such questions feel small considering all that happened during the pandemic. The status quo disrupted by COVID-19 was, to put it mildly, broken. Racial inequality and an ever-expanding wealth gap (i.e., the erosion of the middle class) were among the crises highlighted during 2020. Businesses, hospitals, theater companies, and educational facilities were among many institutions that faced growing pressures to use COVID-19 as a time to pause, reflect, and (re)imagine new processes that promoted equitability. In the spirit of this sentiment, the following section concludes this dissertation by reflecting upon some of the criticisms levied

against simulation pedagogy and using those critiques to envision additional ways in which performance, performance studies, and related disciplines can support a new normal for simulation pedagogy and healthcare.

CHAPTER 6: ENVISIONING A NEW NORMAL FOR SIMULATION AND HEALTHCARE

When COVID-19 first sent billions of people into their homes to work and learn, the desire to "return to normal" was met by a call to use this "pause" as a time to reflect upon the status quo that informed our lives. Do we really need to commute to work every single day – releasing toxic emissions from our cars, committing thousands of dollars into our vehicles for gas and upkeep – just to hold meetings that could just as easily take place over Zoom? Do we really want to commit forty or more hours a week in an office building when we can be just as productive in our own homes surrounded by loved ones? These questions compounded in late May 2020 when video was released of a Minneapolis police officer murdered a Black man, George Floyd, by kneeling on his neck for nine minutes and twenty-nine seconds. Protests spread throughout the world as many called for justice: By holding the police officer accountable for his actions and by enacting policy changes that would address systemic racism.

Rejecting a "return to normal" and, instead, envisioning a new "status quo" that speaks to the many issues facing our society is a call that simulation can help address. After all, simulation is widely seen as a transformative process and one that bears significant responsibility. Scott Magelssen observed that simulation "can purport to save the world" but it can also "function as intensive propaganda" (3). Magelssen's warning is especially true if institutions that produce simulation performances fail to consider constructive criticism of their practices. Worse, perhaps, is the risk of simulation becoming an instrument to solidify harmful practices that perpetuate systemic issues, such as racial disparities in treatment (Hoffman et al.). These concerns are compounded when simulation producers remain in within their own silos.

This concluding chapter begins by acknowledging some significant critiques of simulation in healthcare education. I then attempt to respond to these concerns by introducing

and exploring new theories, both within and outside performance studies, that may address simulation's critics. First, I explore the concept of performativity as a means of shaping professional identity and how simulation performance plays a key role in that formation. Secondly, I suggest welcoming phenomenological hermeneutics into the discussion. This philosophical branch has found some currency among healthcare professionals because it helps articulate how we make meaning. Finally, I return to the world of performance by discussing Augusto Boal's Forum Theater. Again, some simulation centers have already found inspiration in Boal's work, but his concepts are often misapplied. I argue, however, that a true application of Forum Theater could empower healthcare learners to explore and address concerns they see in their profession.

Hungry Learners

Medical professors John Bligh and Alan Bleakley are highly skeptical of simulation pedagogy. Referencing an essay by Sigmund Freud, Bligh and Bleakley condemn simulation pedagogy as "distributing menus to hungry learners, rather than preparing food with them" (606). They draw upon Jean Baudrillard's procession of the simulacra, which begins with an original reality, is followed by a copy distinguishable from the original and then supplanted by a copy indistinguishable from the original, and finally concludes with copies of the copy with no attachment to the "original" reality. Without the connection to the real, the copy (now called a simulacrum) is considered hollow, lacking what Walter Benjamin referred to as the "aura" that defined the "original" artwork (Schechner 131). Baudrillard famously used Disneyland as an example of the simulacrum, but Bligh and Bleakley provide a more modern example of simulacra: "package holidays come to replace spontaneous adventure, computer games replace

play and Internet pornography replaces intimacy" (609). For Baudrillard – and for Bligh and Bleakley – the idea that the simulation/simulacrum can "precede and form the 'real' world'" is a nightmare scenario (ibid.).

Bligh and Bleakley worry that simulation's blurring of the lines between reality and falsehood will create hollow, dehumanizing experiences (Bligh and Bleakley 2006; Bleakley and Bligh 2009). They are not alone in this concern. Some simulation pedagogues worry that "simulated empathy" can "lack authenticity as students learn to act 'empathetic' for purposes of performance rather than establishing a genuine connection with real people" (Bearman et al, 308). Bligh and Bleakley argue that simulation may lead to "inappropriate identity construction in simulated settings that inadvertently promotes simulation of learning rather than learning by simulation," in part because they allege that learners will "cover up bad habits or negative attitudes" based on the knowledge that they are being watched by their peers and their professors (608, 607). This argument feels out of place when one remembers Stanley Fish's observation that there are always rules and norms that govern our behavior as well as our interpretations of the world around us and our place within it. Bligh and Bleakley imply that people in the "real" world do not have the kind of limitations and restrictions that are found in simulation performance, but this is not entirely true. Yes, there are certain actions that simulation participants cannot perform during a simulation, such as intubating an actor performing as the simulated patient. As Chapter Three discussed, learners may have to make certain concessions due to a lack of resources or out of concerns for safety. However, these regulations parallel the regulations of healthcare (or any professional setting). Healthcare is governed by a myriad of laws, regulations, and norms to ensure patient safety. But healthcare workers can, of course, transgress these rules. And learners can transgress the rules and norms of simulation

performance as well. I have observed and performed alongside healthcare learners who push against the boundaries of the simulation performance by trying to reveal knowledge or preparation gaps in the actor's performance as the simulated patient. They may ask irrelevant questions about the simulated patient's background to see if they can "trip up" the actor. They may try to play a character *other* than themselves so that they can "act" alongside the actor performing as the simulated patient (even though they are already acting, as I suggested in Chapter Four). Rather than showing that simulation is somehow "less than" the "real world," these examples demonstrate how simulation is just another realm that is governed by rules, norms, and the ability to adhere to, bend, or break them at will.

Bligh and Bleakley do acknowledge that "simulation can act as a crucial bridge between structured classroom learning and the emergent issues of the complex clinical learning environment," but they continue by arguing that

> too much of a good thing can be dangerous and it is important to remember that the core of medicine is the relationship between a patient and his or her doctor. No amount of practice can replace the real thing. Teaching and learning at the bedside, in the clinic and in the home must remain the very heart of medical education. (Bligh and Bleakley 612)

This conclusion by Bligh and Bleakley presumes that simulation centers are of a second order to reality, that they operate within themselves, and that its users are lured by "the seductive claim that any image is observable, that any event is programable, and thus, in a sense, foreseeable" (Bogard 15-16). Their argument ignores the deep relationships found in simulation centers between the staff and the faculty members who were – and often still are – working in

professional settings. Their experiences working with actual patients in actual clinics is not unlike the day-to-day accumulation of experiences that shapes our interpretations of our world and our places within it. We are learning all the time, constantly (re)calibrating our behaviors, knowledge, and skill sets as new information is acquired and synthesized. Bligh and Bleakley also ignore the experiential nature of simulation, that participants can get angry, tearful, and stressed regardless of it being "just a performance." Finally, they ignore the long history of medicine turning to artistic means to educate learners. In the mid- to late eighteenth century, surgeons did not carry the same level of respect and authority as physicians because they touched bodies and their "working with hands signified a mechanical and manual craft," whereas physicians used their intellect to arrive at diagnoses and treatment (Doyle, 2007, 345). Furthermore, surgeons gained their knowledge of anatomy by using dissection, a practice reviled well until the middle of the nineteenth century. One method for legitimizing surgery as a scientific and medical profession was to employ the use of artists to capture the intricate details of the bodies revealed through dissection. The atlases produced during this time served to standardize notions of a healthy body, and the blending of artistic and scientific language repositioned surgery as "a non-barbaric, and non-manual form of bodily intervention, achieved through the creative genius of the surgeon's mind" (Doyle, 2007, 347). Because these images are so clear, standardized, and accessible, students often prefer the atlases to the real thing. Simon Sinclair observed that medical students, frustrated with the "abnormal" qualities of their cadavers, eventually stopped attending the anatomy lab (179-180). The atlas became preferable and more real than a real body.

These criticisms are useful because they remind us of the responsibility that simulation producers adopt each time they conduct a simulation performance. It is easy to get sucked into

one extreme of the argument. Daniel Sack observes that potentiality in performance often takes on a utopian tone, whereby progressive ideals have found acceptance within a status quo (14). He cautions us that the very nature of potentiality includes the possibility that the expected future does *not* come to pass (15). In order to envision and, therefore, create that ideal future, we need to recognize the problems of the present. This means casting a wider net and inviting disciplines beyond our own to help us see how our interpretative community has informed our practices. For simulation, this will help ensure that that reality we create inside a simulation center is not one-dimensional or surface-level but captures the rich complexities of the actual world. Simulation is a continual process of becoming, a striving towards an ideal that is always already being rewritten. The more voices included in the rewrite, the more equitable the ideal.

Perhaps the best place to start, then, is the critics themselves. Bligh and Bleakley highlight the absence of – and thereby recommend the inclusion of – interdisciplinary theory in simulation scholarship, including "simulation in cultural studies" (such as the work of Baudrillard), "contemporary hyper-realist writing that comments on the culture of the simulacrum" (including writings by Umberto Eco), and "identity construction in a postmodern world, where simulation becomes intimately bound with the formation of self, and the management of a professional identity" (such as performativity, which is the topic of the next section) (607). Scott Magelssen offers *invocation*, his term for when participants rehearse "for a future reality and advocate for that future reality […] through performance," as a means of retaining a hopeful, albeit cautious, opinion of simulation (14). He concludes his book with a call for simulation participants to have agency to co-create the narratives of a simulation performance. Forcing participants into a narrow script written by the simulation producers,

warns Magelssen, fails to realize the full potential of this modality; worse, it could reify harmful practices (183).

The following sections, therefore, are responses to the critics cited above. The first section explores identity creation through performativity, which is the third item suggested by Bligh and Bleakley. The second section looks at two different (and often competing) theories – performance studies and phenomenological hermeneutics – and their potential to help simulation pedagogy reach beyond its disciplinary borders. The third section looks to forum theater as a model to create inclusive, participant-generated experiences that promises invocative simulation experiences.

Simulation: The Perfect Performative

Bligh and Bleakley's suggestion to study "identity construction in a postmodern world" suggests the complex notion of *performativity*, which is one of the key concepts within performance studies (607). Furthermore, performativity and simulation, within the domain of performance studies, are related: In his introductory textbook on performance studies, Schechner discusses simulation during his chapter on performativity, where he declares simulation to be the "perfect performativ[e] (133). In using the term "performative," Schechner draws upon two key approaches to performativity: the linguistic speech-acts identified by J.L Austin and the performance of social identities as articulated by Judith Butler. Both approaches see performatives as powerful tools to not only create reality but to *sustain* that creation. Butler's articulation of performativity revealed that identity is a construct created and sustained through reiterated performance.

The exploration of performativity, at least within performance studies, begins in 1955 with J.L. Austin, a philosopher of language who delivered a series of lectures at Harvard University that were later collected and published as *How to Do Things with Words* (Carlson 61). Austin distinguished between constatives (simple descriptive statements) and performatives, a category of utterances that performs the action it says it is performing. For example, saying "Garrett and Matthew got married yesterday" is a constative, whereas Garrett and Matthew saying "I do" to each other during their wedding ceremony unites them in matrimony. As Fischer-Lichte observes, a performative statement "effectively changes the world" (24). Those two simple words change Garrett's and Matthew's identities (from affianced to married) and thus their relationship with the world around them.

Austin recognized that validating performatives could not occur by assessing whether it was true or false, so he attempted to establish a formal set of conditions to determine whether a performative utterance was "felicitous" or "infelicitous" (Carlson 61). For example, Fischer-Lichte notes that uttering the words "I do" will only successfully marry two people if they are within the appropriate context. This is because a performative utterance "always addresses a community, represented by the people present in a given situation – it can therefore be regarded as the performance of a social act. It does not simply validate a marriage but performs it at the same time" (Fischer-Lichte 25). Within the realm of performance, however, Austin viewed performatives uttered by actors to be "hollow or void," their words "parasitic" on the formal rules that allowed performatives to be recognized as such in conventional usage (Austin 22). Austin argued that actors may perform a wedding or gambling scene on stage but, as fictional characters, their performatives lack the weight of efficacy. Yet, as Schechner observers, Austin failed to acknowledge that performers and spectators alike can get swept away in the

performance. "The characters are real within their own domain and time," notes Schechner, "insofar as the characters partake of their *special reality*, their performative utterances are efficacious" (124, emphasis added).

Schechner's observation is supported by philosopher James Urmson, who provides a useful distinction between the "historical truth" of a theatrical performance and its "dramatic truth" (337). Urmson uses the technical jargon of semantics and logic to make his argument (such as counterfactual conditionals and J.L. Austin's notions of phonetic and phatic acts), but his conclusions are straightforward enough that a pithy summary towards the end of his essay will suffice for this dissertation: Historical truth is "what the actor does," whereas the dramatic truth is "what the character he portrays does" (341). Spectators interpret between the historical truth and the dramatic truth "based on a general understanding of the background conventions, context and occasion of" what occurs on stage (ibid.). This is especially important when actors simulate or "appear to do one thing when [they are] in fact doing another," certain actions that would be problematic to actually carry out on stage, such as violence or sex (Urmson 341). The historical truth may be that the actor is simulating the murder of a fellow actor, but within the context of the performance's dramatic truth, the audience must view this simulation as a genuine act. Otherwise, "it would have to represent killing by a simulated blow" (Urmson 342). This interpretive function of the audience leads Urmson to declare that spectators only suspend their disbelief "with regard to simulation and illusion" and not for theatrical performances as a whole. If we did, we would rush to the stage while calling the paramedics anytime we watched the actor playing Tybalt simulating the murder of the actor playing Mercutio at the end of their duel in *Romeo and Juliet* because we would have suspended our ability to acknowledge the fiction of the performance. In many ways, Urmson's concept of historical and dramatic truth is similar to

Fischer-Lichte's concept of perceptual multistability discussed in Chapter Four. The spectator's perception of the performance is constantly oscillating between the historical truth/presence of the actor and the dramatic truth/representation of their character. This is also true within simulation performance. Learner-spectators are asked to view their peers (learner-performers) and the simulated patient as real and only suspend their disbelief whenever a procedure is simulated for the safety of the performers. As discussed above, simulation performance complicates this divide by transforming all learner participants into performers at some point in the simulation activity. Yet, even then, the learner-performers and the actor performing as the simulated patient must suspend their own disbelief during the performance. Simulating a procedure, such as administering an intravenous drip, by either verbalizing it or representing it (perhaps by tapping the patient's arm with a pencil), is treated within the dramatic truth of the performance as if the procedure actually occurred.

Ultimately, the formal conditions that Austin erected to determine the felicitousness of a performative utterance is rather rigid. For example, one of Austin's conditions for a felicitous performative assumes that the utterance in question was spoken with pure intention. However, how can we ever know whether the bride and groom truly intended to marry each other or whether those intentions shall last forever (another entry within Austin's formal rules)? Of course, no one can truly answer those questions – perhaps not even the newlyweds themselves. This led poststructuralist thinker Jacques Derrida to critique Austin in his essay "Signature – Event – Context" by arguing that all utterances are, by default, infelicitous because all utterances are citations of previously uttered utterances (Carlson 76). In other words, our ability to communicate with one another stems from our recognition of previously uttered words and previously behaved actions (which Schechner refers to as "twice-restored behavior"). This "self-

referential and constitutive" quality "bring[s] forth the social reality they are referring to" (Fischer-Lichte 24). Without these qualities, we would be trapped within highly rigid rules and conditions that would present considerable obstacles when we communicate with one another. Language, for Derrida, is an unstable, ever-shifting system of signs. Any sense of stability arises out of language's iterability and its citational nature rather than from a formal set of rules and conditions. This led Derrida to recognize that meaning

> is not singular, original, or locatable. Meaning is not owned by the speaker, the spectator, or even the circumstance. Meaning – and all and every meaning is contingent, temporary – is created in process through the complex interaction of all speakers – players – and their specific personal-cultural circumstances. (Schechner 125)

The rejection of fixed meanings proved to be incredibly important because it was not limited to language itself. It also destabilized strict notions of gender, race, sexuality, and other identities that had long been considered fixed and given.

One notable theorist was Judith Butler, who was inspired by Simone de Beauvoir's *The Second Sex*. In this foundational text, de Beauvoir traced the political, social, and economic reasons for why women were (and still are) treated as inferior to men, culminating in the famous declaration that "one is not born a woman; one becomes a woman" (301). Butler extended this assertion by observing that "gender is in no way a stable identity or locus of agency from which various acts proceed; rather it is an identity tenuously constituted in time – and identity instituted through a *stylized repetition of acts*" (519, emphasis in original). She referred to these stylized repetition of acts as "performatives," a term she borrowed from Derrida (and not, surprisingly,

from Austin) (Carlson 83). These acts include "gender-specific vocal inflections, facial displays, gestures, walks […] of a given society" that are learned and adopted from an early age and constitute one's gender (Schechner 151-152). This means that gender performance, like Austin's performative utterances, are also citational (Carlson 83) and "'non-referential' because they do not refer to pre-existing conditions such as an inner essence, substance, or being supposedly expressed in these acts; no fixed, stable identity exists that they could express" (Fischer-Lichte 27). Instead, these acts are "internally discontinuous" and lead to the "*appearance of substance* […] a constructed identity, a performative accomplishment which the mundane social audience, including the actors themselves, come to believe and to perform in the mode of belief" (Butler 520, emphasis in original). They can believe in these performances because "gender reality is performative, which means, quite simply, *that it is real only to the extent that it is performed*" (527, emphasis added).

This is also true of professional identity, and simulation plays a key role in its formation within healthcare education. Simulation activities invite learners to perform a future version of themselves, one that is fully trained, licensed, and employed within a clinical setting. The learners perform in a simulated scenario designed to yield certain experiences that the scenario authors feel is necessary to bridge the gap between novice and expert. The simulation scenarios themselves may be a one-time experience for the learners, but simulation performance is a constant and integral part of the healthcare educational process. Altogether, simulation performance helps develop the habitual behaviors that comprise a professional identity. Wearing scrubs, washing hands when entering the exam room, and the language spoken amongst and between healthcare professionals (and how to translate that jargon into laymen terms whilst speaking with a patient) are all imparted through their training but highlighted through

simulation performance and the subsequent debriefing sessions. These are not "natural" behaviors; there is no "essential" quality of a healthcare identity. Rather, it is a constructed identity and, as Mermikides notes, "fabricated in a way that it hides its own constructed nature: the doctor is defined by who she is – and how she feels – as well as what she does" (83). Performance studies, however, can help us identify the forces that contribute to that constructed identity, including their education (including non-simulation modalities, such as classroom lectures or clinical experiences); their personal experiences outside the university with health, illness, and death; and representations of their career in entertainment.

It is crucial to acknowledge that Butler's articulation of performative gender identity "makes a very important distinction between performing against the dominant code in a theater and doing so on the street" (Schechner 153). Butler's example is a drag queen: An actor performing as drag queen in a play (such as *Hedwig and the Angry Inch* or *The Legend of Georgia McBride*) may be received with applause. That same actor, still in drag, may face violence while riding the bus home because they may be seen as a threat to the established gender norms of that particular community (ibid.). When I first set out to write this dissertation, I worried that tying professional identity with performativity would be problematic because I did not think it carried the same high stakes that Butler ascribes to gender performativity. Butler's exploration of gender identity was vital and groundbreaking – we are all gendered by a society that largely thinks of gender as an essential, given identity that informs one's being in the world. However, in some ways, we are also "professionalized." A common follow-up question after learning a stranger's name is: "what do you do for a living?" One's occupation carries and conveys certain connotations – imagine the responses I get when I tell strangers I am pursuing a doctorate in theater and performance studies. Nurses and doctors, although both healthcare

professions, carry different connotations regarding status, dress, behaviors, and relationships with patients and their peers. These connotations are historical constructs. And, as constructs, they are highly malleable. This was made especially clear during the COVID-19 pandemic. In the beginning of the pandemic, people in cities around the world made huge shows of appreciation for frontline healthcare workers. New Yorkers had a nightly ritual of applauding doctors and nurses from their apartment windows (Hardcastle). Stories of food donations, such as pizza deliveries, made the news (Liu). As the pandemic stretched to the summer months, a small but vocal portion of the general population lashed out against healthcare workers and anyone who followed the advice of medical experts, such as Dr. Anthony Fauci, to wear masks in public and to practice physical distancing. No image better summed this up than Alyson McClaran's photograph taken during an anti-mask protest in Denver. The image shows a healthcare worker, clad in green scrubs and an N95 mask, standing in the middle of the road to block an anti-mask protestor waving a handmade sign out of a silver pickup truck (Nashrulla). Not only does this image capture the shifts in which identities and their respective connotations can change, it also demonstrates that professional identities may carry certain dangers depending on the context.

Furthermore, this photograph of a non-white frontline healthcare worker captured the racial tensions that arose in the summer of 2020. The murder of George Floyd by a Minneapolis police office, captured on a cell phone camera and widely shared online, sparked protests across the country (Taylor). Floyd's death reignited conversations around systemic racism's lasting hold on much of American society, including theater (American Theatre Editors) and healthcare (Samuels). Former president Donald Trump, his administration, and his followers repeatedly referred to COVID-19 with the racist term, "China flu," which directly contributed to a rise of

racist threats and violence towards Asian-Americans (Salcedo). This extended to healthcare providers of Asian and Pacific Islander descent. For example, *The New York Times* shared the story of Dr. Edward Chew, an emergency department head at a hospital in New York, who was harassed while purchasing protective equipment for his staff. Dr. Chew also experienced people covering "their nose and mouth with their shirts" whenever they passed him (Tavernise and Oppel).

These events were a reminder of the opportunities to improve racial representation at THSSC. Most of the manikins at THSSC are white (some of the medium-fidelity manikins and the birthing manikin do read as a person of color). Many of the graduate assistants who are part of HealthCAST come from the continent and are white (as am I). Because I must prioritize their time when casting, I have been put into awkward situations where I have cast white actors in roles written for people of color. Thankfully, this practice will end. If I cannot recruit an appropriate actor for a role, then the simulated patient will be portrayed by a manikin. Hopefully, this will not be necessary since THSSC used the summer of 2021 to develop a mechanism to compensate volunteers who perform in HealthCAST-supported simulation performances. This will hopefully expand the pool of actors available to perform in simulation and allow us to cast appropriately regarding race, ethnicity, and perhaps, age.

These are all important considerations because performativity and simulation are not simply external, i.e., they are not limited to clothing, facial expressions, or the grammar and syntax of sentences. Performativity – and I believe, simulation pedagogy – is a major contributor to how we make meaning through embodiment. Butler builds off the work of French phenomenologist Maurice Merleau-Ponty to position performativity as a means of embodiment that constitutes "meaning and through which meaning is performed or enacted" (521). Butler

notes how Merleau-Ponty viewed the body as "a set of possibilities to be continually realized" through "dramatic" means (ibid.). Butler's use of the term "dramatic" articulates how the body is not "merely matter but a continual and incessant *materializing* of possibilities. One is not simply a body, but, in some very key sense, one does one's body and, indeed, one does one's body differently from one's contemporaries and from one's embodied predecessors and successors as well" (ibid., emphasis in original). Yet, this is not entirely up to the individual. "Individuals alone […] are not free to choose what possibilities to embody, or which identity to adopt. Neither are they wholly determined by society" (Fischer-Lichte 27). Again, we find further support for Fish's concept of interpretive communities, which argues that the self is a "social construct whose operations are delimited by the systems of intelligibility that inform it" and that meaning is not created wholly from the individual but has its "source in the interpretive community (or communities) of which it is a function" (335).

Butler's decision to relate embodiment with performance is especially useful to performance studies scholar Erika Fischer-Lichte. She notes that, as far back as the eighteenth century, the actor's body was seen as a vessel to transmit a predetermined meaning in written text. For Fischer-Lichte, this required "disembodiment," i.e., the elimination of "any reference to the actor's bodily being-in-the-world" so that the actor's *material* body could become a *semiotic* body (78-79). At the turn of the twentieth century, according to Fischer-Lichte, theater practitioners started to explore techniques to highlight and acknowledge the actor's material body. Russian director Vsevolod Meyerhold, for example, "saw the body as an endlessly perfectible machine optimized through clever calculations by its engineer" which can "affect the audience directly and, at the same time, allows for the generation of new meaning" (Fischer-Lichte 81). The work of Meyerhold and his contemporaries inspired other avant-gardists,

permitting Fischer-Lichte to offer a new definition of embodiment as "the emergence of something that exists only as body […]. The bodily being-in-the-world of the actor provides the dramatic character with its existential ground and the condition for its coming into being" (84). Fischer-Lichte continues, writing:

> character now is no longer composed of inner states which the actors express with their bodies. Rather, the character is defined by what is brought forth by the sum of the performative acts, which in turn constitute the actor's own physicality […] No dramatic character exists beyond individual physicalities of the actors. (86)

This then leads Fischer-Lichte to offer her own definition of embodiment: It is an emphasis on "the bodily-being-in-the-world of humans" that "creates the possibility for the body to function as the object, subject, material, and source of symbolic construction, as well as the product of cultural inscriptions" (89). It is a constant process for "the human body knows no state of *being*; it exists in a state of *becoming*" (Fischer-Lichte, 92, emphasis added). Schechner, likewise, in his summary of Derrida's concept of *différance*, observes that "meaning is always performed: Always in rehearsal, its finality forever deferred, its actuality only provisional, played out in specific circumstances" (146).

In simulation performance, the actor's body is rarely just a body in itself but a frame in which meaning can be carried. This is why simulated patients memorize the learning objectives – an errant cough to clear their throat could be interpreted by the learner as a significant clue towards understanding their simulated patient's illness. On rare occasions before COVID-19, we

had to dissimulate, i.e., inform the learners to ignore certain physical conditions present in the actor out of concern that it would distract the learners from achieving their learning objectives.

Some aspects of this performative – the scrubs, stethoscope, and other accoutrements – are all signs of the profession that separate them from the "layperson." Yet, there is nothing inherent in the cloth of the scrubs or the shape of the stethoscope that conveys this meaning. This was playfully demonstrated by medical anthropologist Sjaak van der Geest who compared medical practices with religious ritual. Of course, van der Geest's analysis (useful as it is) is itself informed by the interpretive communities that comprise the field of medical anthropology. Perhaps, then, simulation pedagogy should consider the insights of phenomenological hermeneutics, a field that specializes in meaning-making and understanding.

Hermeneutical Approaches to Healthcare (Pedagogy)

In the first chapter, I cited Stanley Fish's observations that interpretive strategies are not subjective but "social and conventional," that our "mental operations" are "limited by the institutions in which we are *already* embedded," and the products we create (an assignment, a simulation, a performance) are all informed by the "interpretive strategies that are finally not our own but have their source in a publicly available system of intelligibility" (331, emphasis in original). Fish's concept of interpretive communities comes from reader-response and reception theory, but they share some common themes with a branch of philosophy known as *hermeneutics*[22]. Hermeneutics refers to the art of interpretation and takes as its starting point the notion that humans are "symbol-using and -interpreting agents" always already on a "quest for meaning carried out through language and action" (Schweiker 3). Early hermeneuts "stood amid

[22] Marvin Carlson, for example, refers to Hans-Georg Gadamer, a significant philosopher in phenomenological hermeneutics, as a "reception theorist," suggesting that these two fields share some overlap (*Performance*, 166).

an imitative and symbolic universe and interpreted itself in its matrix of meaning," in part by developing and using methods to understand sacred texts (Schweiker 5). Eventually, hermeneutics expanded to serve as a "general, overall discipline dealing with the principles regulating all forms of interpretation" (Madison 290).

German philosopher Hans-Georg Gadamer developed a branch of hermeneutics known as *philosophical hermeneutics* or *phenomenological hermeneutics*, which is "indeed concerned with human being and doing, but it also seeks to understand what confronts us as different and other, whether that other is […] the face of the poor, or the strange claims of the past [… it is] irreducibly tied to the problems of life" (Schweiker xi). Such concerns have found currency with some nursing scholars who have taken to heart Gadamer's emphasis that understanding is "always situated in our historical, dialectical, and linguistic traditions" which means that "both truth and method [is] something other than the objectivist and dogmatic versions that had come to be implicitly accepted with the rise of modern science" (Binding and Tapp 122).

Graham McCaffrey and Nancy Moules, both nursing professors at the University of Calgary, noted in their 2016 article that nurses have "been guided by Gadamer's work for over 20 years" and cite over a dozen different topics researched by their colleagues from a hermeneutical perspective, including "therapeutic letters in family systems nursing," "vicarious trauma on nurses working in mental health," "sexuality, relationships and spinal cord injury," and "impacts of deaths on pediatric oncology nurses," to name a few (5). Moules was part of a three-person team that established the Canadian Hermeneutic Institute in 2009, despite her claim that "we are not philosophers in the strict sense of the discipline. We are nurses and educators" that fold Gadamerian concepts into their "teaching, discipline, and […] research" (McCaffery and Moules 4). The Canadian Hermeneutic Institute attracted major hermeneutic scholars,

including John Caputo, Jean Grondin (one of Gadamer's biographers), and Richard Kearney (ibid.). Kearney urged McCaffery and Moules to launch the *Journal of Applied Hermeneutics*, which publishes "philosophical papers to more practical interpretations of aspects of our disciplines that speak to the conditions of living" (5).

For nursing professor Gary Rolfe, hermeneutics is the solution for a problem he sees within his own profession. Rolfe argues that the practice of nursing has drifted away from its primary definition as a relationship of caring. He believes this shift is the result of nursing choosing to follow the empirical research models of the social sciences to guide its research and its practice, which he argues has led nursing to adopt research paradigms that generalizes the behavior of large social groups to determine its best practices (Rolfe 146). Rolfe claims that this choice has resulted in nursing becoming "too technical rational," arguing that "the key question for rationalists when making decisions about how to act is not *how is this knowledge of use to my practice* but *how was this knowledge produced*, and judgements about best evidence for practice are made according to the research methods used to produce that evidence" (142, emphases in original). This leads to a disconnect between those who develop theoretical frameworks and paradigms and those who are asked to apply them in practice, especially since neither group can engage in a "reasoned discussion" to determine whether the proposed theory is appropriate for the practitioners (142-143). Of course, this problem is not limited to healthcare; theater artists may also struggle when they work with someone who is guided by a particular theory (such as Stanislavsky's System, Strasberg's Method, Anne Bogart's Viewpoints, etc.) but their approach is not the best choice for the project at hand. Consider the frequency to which an actor or director leaves a project over "creative differences."

There have been efforts within nursing to adopt different models, including a "transcendental study of phenomena or sense data at the point at which they first present themselves to consciousness" (Rolfe 144), i.e., phenomenology. However, Rolfe contends that phenomenology has been misapplied, especially in attempts to understand qualitative data where social scientists treat "language instrumentally as blocks of data that can be sliced and diced, rearranged, categorized, thematically sorted, and objectively analyzed for their essential meaning or core concepts," an approach he points out originated as a *quantitative* method (145). This, he argues, devalues the human experience when determining best practices and creates generalizations that negatively affect the degree of care provided by nurses to their patients. Ultimately, Rolfe asserts that nursing "made a wrong choice" in choosing a research paradigm that treats patients as "sources of data and as passive bodies to be acted upon, as objects rather than subjects," and advocates instead for a hermeneutic approach towards caring (Rolfe 147).

Rolfe draws from hermeneutics the importance of engaging with individual patients on a personal level through "therapeutic dialogue" and using medicine and social sciences to supplement technical and social knowledge, respectively (150). Gadamer himself believed that his contribution to hermeneutics was "to stress the fact that language is only properly itself when it is dialogue, where question and answer, answer and question are exchanged with one another" (Gadamer, "Treatment and Dialogue," 127). This dialogue may occur through a work of art, a play production, a musical performance, festival participation, or through a conversation between a healthcare provider and their patient. Regardless of its mode, Gadamer asserts that understanding does not come from trying "to get inside another person and relive his experiences" (Gadamer, *Truth & Method*, 345). Rather, a *fusion of horizons* takes place where "the dialectic of question and answer, the to and fro [sic] of dialogue and genuinely open

conversation" allow a topic to become "more fully understood" (Binding and Tapp 122). Here, "horizons" refers to the combination of tradition, history, and experience that comprises an individual's consciousness. Fusion does not mean that two or more horizons are forever combined. Rather, it suggests that "meaningful dialogue with the 'other' (a genuine contact with the other, as other) is always possible, given the necessary effort and good will" (Madison 307). Gadamer argues that "to understand is *to come to an understanding*, that is, to reach an agreement on meaning" (Rolfe 145, emphasis in original). Phenomenological hermeneutics, therefore, positions understanding not as "an analytic procedure; it is not even an empathetic process; it is primarily a human encounter" (ibid.). For Rolfe, then, hermeneutics is a way of shifting the emphasis from teaching technical skills to nurses towards educating them on how "to look, listen, think, feel, imagine, believe, understand, choose, and wish" – all qualities that he feels are part of a "human science" and which are well within the domain and scope of simulation in healthcare education and performance studies (151, emphasis in original).

For example, in the previous chapter I mentioned that facilitators are often disappointed when their learners cling to checklists and task-based skills while interacting with the simulated patient (especially when an actor is performing that role) instead of engaging them in empathetic dialogue. THSSC has tried several approaches to remove this crutch, such as pre-filling the questionnaires or removing them outright. However, learners often find ways to rely on the questionnaire, word-for-word, without engaging in a genuine dialogue with their simulated patient. This is a disappointing result, and the post-performance debriefing phase does allow for the facilitators to address this issue, but the learners engage in this behavior because it is how they are taught to interact with patients. The questionnaires and checklists ultimately provide easy, black-and-white steps to complete a task. The gray area – where looking, listening,

thinking, feeling, imagining, believing, understanding, choosing, and wishing happen – can be an uncomfortable place to reside. Simulation, with all its efforts towards creating a safe learning environment for participants to try and make mistakes without consequences, is a great opportunity to become more comfortable with the gray areas of healthcare.

The above example is admittedly minor compared to the weighty applications often found in hermeneutics, i.e., it is not hermeneutics employed to reveal the grand mysteries of a poem by Stéphane Mallarmé or Paul Celan, for example. Yet, I include it here as a way of following the example provided by McCaffrey and Moules when they defined Gadamer's "retrieval of *phronesis*, or practical wisdom" in their article (4). They share the story of a healthcare aide who, unable to find the pot that fit their patient's commode, provided a trash can for the patient to urinate in. The healthcare aide quickly realized that, although the trash can was a functional solution to the problem at hand, it eroded the patient's dignity and respect; they then made a greater effort to find the commode pot (ibid.) McCauffey and Moules argue that this anecdote is a valid example of *phronesis* because it "does not demand grandeur of scale, or life and death consequences. It does demand a refinement of sensibility, an acuity of perception that has to be practiced over and over, so that it is precisely in the capacity to practice in the smallest of cases that it is more likely to be practiced at all" (ibid.). This is a wonderful parallel to simulation in healthcare education, which affords participants numerous opportunities to develop and hone *phronesis*, among other hermeneutical concepts, such as dialogue.

Rolfe's argument also draws upon Gadamer's acknowledgement of prejudice as part of interpretation. Here, Gadamer is not referring strictly to racist or bigoted notions. Rather, he is acknowledging that we all rely on prejudice, or "fore-meanings," whenever we seek to understand something or someone (Gadamer 238). "The important thing is to be aware of one's

own bias," advises Gadamer, so that we can engage with the topic "in all its newness" and allow it "to assert its own truth against one's own fore-meanings" (ibid.). All academic disciplines erect paradigms (i.e., the scientific method, SBARC, Stanislavsky's System, Schechner's brand of performance studies, hermeneutics, etc.) that inform how its adherents see the world, their place within it, and how they behave as a product of that discipline. In other words, all academic disciplines bestow certain prejudices through their respective interpretive communities.

This is one of the many reasons why interprofessional education is so important, especially in healthcare education. Nurses, doctors, social workers, pharmacists, etc., all learn in academic silos, i.e., within their own interpretive communities, but may find themselves working together when they enter the professional sphere. Bringing them together in simulation allows them to learn new questions to ask and new ways to see themselves and the world they inhabit. It also reveals the different paradigms that inform their practice and helps them learn how to better communicate and work with each other, which in turn allows them to provide better care to their patients. Likewise, welcoming theater students into the simulation experience and encouraging their honest feedback during the debriefing phase is very beneficial for the healthcare learners. The training and experiences of the theater students are further removed from the training and experiences of the different healthcare professions, but they are still valid sources of knowledge that compliments the bodies of knowledge found in healthcare. Actors performing as simulated patients also bring with them the perspective of a layperson, the types of people the healthcare learners will care for when they enter practice.

Some simulation centers have gone further and welcomed disciplines that offer critical feedback on healthcare practices. Amy Cowperthwait and her team at the University of Delaware acknowledged the problematic nature in which health educators tend to "teach cultural

competence by emphasizing static traits and implying that it can be acquired as a technical skill" (416). So, they reached out to the medical anthropology department to develop simulations that better promoted cultural diversity and competency (ibid.). These simulations utilized theater students to perform as the standardized patients interacting with the nursing students. The medical anthropology students observed the performance. Afterwards, "theatre students offer[ed] feedback from the perspective of the diverse patient. Anthropology students focus[ed] their feedback on cultural competence" (ibid.). The interpretive community at the University of Delaware expanded while certain biases and traditions were lifted up, reflected upon, and adjusted towards bettering patient communication and care.

I acknowledge that adding more voices to simulation development, performance, and debriefing increases the chance of having "too many cooks in the kitchen" and could lead to frustration, failed collaboration, and a retreat into the safety and comfort afforded by individual academic silos. However, I believe that an openness to wider collaboration and input is worth pursuing. Perhaps a deeper analysis in the benefits of incorporating phenomenological hermeneutics into simulation for healthcare education (which would go beyond the scope of a dissertation in performance studies) could help guide healthcare educators on how their respective fields make and understand meaning, and how that meaning intersects with their patients' understanding of their health and illness. The debriefing phase, for example, might be an excellent place to apply Gadamer's work on dialogue in meaning making and understanding. After all, as I discussed in Chapter Two, the PEARLS approach to debriefing calls for an "advocacy-inquiry approach" whereby facilitators will engage in a "*conversational strategy* that is part of debriefing with *good judgement*" to determine why learners chose certain behaviors and strategies during the simulation performance (Cheng et a. 422, emphasis added).

Incorporating those insights into scenario development, production, and post-performance debriefing could create a more inclusive environment for all involved and lead to more genuine human encounters in the clinic. These insights would also be useful for creating simulation experiences that increase the agency of its participants because simulation producers would have a better understanding on how the simulation performance contributes to the learners' meaning making process.

Forum Theater

Scott Magelssen concludes his book on "simming" by advocating for simulation participants to have greater agency to co-create the narratives of a simulation performance. He worries that simulation producers too often force their participants down a narrow script that could reify harmful interpretations and practices because of their limited perspective (i.e., prejudices) (Magelssen 183). In Chapter Three, I noted how many theater practitioners have developed different approaches to transform spectators into actors, in part to give them greater agency in how they experience the performance. One of the most impactful methods to transform spectators into actors – and one that has already found some currency in simulation centers across the globe – comes from Brazilian theater director and theorist Augusto Boal and his work on *forum theater*.

Boal wanted to return to the communal nature of ancient Greek rituals that gave birth to theater itself. He lamented that the "ruling class" divided spectators from observers and distinguished protagonists from the chorus (Boal 119). Furthermore, Boal believed that Aristotle's *Poetics* reduced spectators to passive observers who delegate "power to the dramatic character so that [they] may act and think for him," which allows for "catharsis," or a purgation

of negative feelings, to occur (Boal 122). He proposed a new poetics where "the spectator delegates no power to the character (or actor) either to act or think in his place; on the contrary, he himself assumes the protagonistic role, changes the dramatic action, tries out solutions, discusses plans for change – in short, *trains himself for real action*" (ibid., emphasis added). Boal's proposal here parallels simulation pedagogy, and it is easy to understand why some healthcare educators have been inspired by his work. However, the examples of forum theater discussed in healthcare literature fall short of Boal's intentions. To understand their shortcomings, it will be helpful to provide a summary of forum theater.

Boal proposed a four-stage process to transform a spectator into an actor. Forum theater is the third and final "degree" of stage three, "the theater as language" (126). In this stage, participants learn how to "practice theater as a language that is living and *present*, not as a finished product displaying images from the past" by directly intervening in the action (ibid., emphasis in original). The first degree that participants engage in is "simultaneous dramaturgy," which begins with actors performing a short scene to the point where the "main problem reaches a crisis and needs a solution" (132). The actors then stop the performance and ask the spectators for solutions, which the actors then use to inform their improvised responses to the problem at hand. The participants can still stop the performance and correct the actors and the performers must adhere to the spectator's feedback (ibid.). The second degree, "image theater," asks one participant to express their views on an issue by "sculpting" the bodies of the other participants into static images that represent how the "spectator-sculptor" feels about the problem (135). The spectator-sculptor cannot speak but must use direct physical touch to demonstrate how they want the other participants to hold themselves. Once the spectator-sculpture has finished, they then use the participants bodies to show an ideal solution to the problem. This is followed by

sculpting the participants into a "transitional image" that demonstrates how "to pass from one reality to another," i.e., from the "actual image" of the first sculpture to the "ideal image" of the second sculpture (ibid.).

These first two degrees – simultaneous dramaturgy and image theater – prepare participants for forum theater. Here, in the third and final degree, Boal invites participants to create and present a short skit that a) identifies a difficult problem facing their community and b) a proposed solution to this issue (139). Afterwards, the observers are asked if they agree with the proposed solution. If not, the participants repeat the performance but this time, any other participant may replace any actor in the skit. This new actor cannot simply offer suggestions for someone else to enact; *they must create change themselves through direct action*. The other performers in the skit must respond appropriately to the new actor and "all the possibilities that it may present" (ibid.).

Forum theater shares with simulation performance the opportunity to meaningfully apply knowledge and skills in a safe environment. Boal observed that "the spectator-actor practices a real act even though he does it in a fictional manner […] within its fictitious limits, the experience is a concrete one" – a sentiment that neatly parallels simulation (141). Forum theater (and simulation) has transformative possibilities because

> the rehearsal stimulates the practice of the act in reality. Forum theatre, as well as these other forms of people's theater, instead of taking something away from the spectator, evoke in him a desire to practice in reality the act he has rehearsed in the theater. The practice of these theatrical forms creates a sort of uneasy sense of incompleteness that seeks fulfillment through real action. (Boal 142)

For this reason, some healthcare educators have produced simulation events inspired by forum theater. They believe that forum theater shares simulation's goal to create a "safe space not only to learn new actions or approaches, but also to practice them and make them personal. There is at once the safety of fictional distance and the visceral experience of being part of a shared, unique adventure" (D'Ardis 1136).

However, many of the examples of forum theater in healthcare simulation are deeply flawed. For example, the nursing faculty at Regis College collaborated with theater faculty on a simulation scenario designed to give the nursing students an experience with end-of-life communication using forum theater as a model. A theater professor performed as a hospice patient and theater students performed as the patient's daughters; there was no rehearsal. The thirty-five-minute performance took place on stage with a set designed to simulate a room in the patient's house. Observers watched from seats located in the theater (Tuxbury, McCauley, and Lement 463). After the performance ended, the nursing students identified ten different "important moments" and chose two to be repeated in a subsequent performance. Suggestions were offered but none of the forty-three participants stepped into the role to enact change (ibid).

In another article, Melanie D'Ardis describes a simulation scenario inspired by forum theater that was presented at the 2012 World Mental Health Day at Buckinghamshire New University in Wycombe, England. The presenters performed the scenario twice with frequent pauses in the action to allow the audience to comment on the scene, but the observers never stepped into the performance to enact the changes they suggested. D'Ardis still praises "forum theater" for its ability to "stop and magnify a moment in time, allowing us the luxury of analysis and reflection that real life rarely affords us" (1136).

However, what these two articles describe is *not* forum theater; it is simultaneous dramaturgy, the first step towards forum theater. D'Ardis does admit that they did not properly implement forum theater as Boal intended due to time constraints but still promotes this approach because simulation educators would not need to hire professional actors (1137). Despite misapplying forum theater, D'Ardis expresses concern that forum theater could become too prescriptive and lose the freedom and agency that Boal calls for in transforming spectators into actors. "The stories aren't those of the participants after all" she writes, "if someone doesn't engage their creativity, how can they imagine other possibilities or alternative courses of action? Creativity is a skill that enhances cognitive flexibility; a valued quality in nursing" (ibid). However, Boal's forum theater as envisioned *is* designed to address issues raised by all participants and gives everyone a chance to enact possible courses of action.

The most frustrating example of forum theater being misapplied in simulation pedagogy comes from Sweden, where Boal's work was used as inspiration to help nursing students practice conflict management skills. The article's authors attribute forum theater to Boal but "introduce" another concept, "forum play," where

> a group of the participants are instructed to perform a short scene where someone is being subjected to some form of unjust treatment by another or by others that results in conflict. The scene is then replayed, and the audience is invited to change the situation by stepping in and trying out new actions and strategies to manage the conflict in a more constructive way. (Arveklev et al. 210)

This is forum theater as Boal intended. Yet the authors contend that the difference between forum theater and forum play is that the former is a "theater performance for an audience" whereas the latter pertains to "activities […] conducted in the form of a workshop" (ibid.). This faux distinction is particularly confounding because the workshops were led by theater instructors who were presumably versed in Boal's teaching. The workshops began with warm-up exercises before continuing onto the conflict scenarios. Participants were divided into groups of four or six and asked to share examples of conflicts. Each group chose one conflict to present to the rest of the groups who in turn "participated actively in exploring each situation" through the lens of "forum play" (Arveklev et al. 211). Afterwards, participants praised the experience, allowing the authors to observe that "participating in drama could motivate the participants to intervene *in future conflicts* as it became clear that nurses really have the power to influence and change conflict situations" (Arveklev et al. 213, emphasis added).

The misapplication of forum theater as described in D'Ardis and Tuxbury et al. extends beyond the lack of learners directly intervening in the action. Boal says that the first step of forum theater is for the participants to "tell a story containing a political or social problem of difficult solution" that is then adapted into a short skit (139). In the examples provided by D'Ardis and Tuxbury, the nursing faculty decided upon the problem and the story that encapsulated said problem. In the example described by Arveklev et al., the faculty decided in advance that their topic would be conflict management, so they brought in facilitators who were comfortable with the topic. However, the actual scenario – what the conflict is about and how it is brought up – was decided by the learners under the guidance of the facilitators.

Given the nature of simulation pedagogy, which must follow certain standards of best practices, this approach is probably the best option for simulation producers to adopt as they take

steps towards forum theater as defined by Boal. They could poll their learners about topics that concern them, identify facilitators versed in that subject matter, and provide learners with relevant pre-work prior to the simulation performance. The scenario itself, however, would be decided upon by the learners themselves and generated through the performance by the learner-performers. It would not be pre-written in a simulation template. The facilitators would need to be flexible in how they respond to the performance in the debriefing phase, but this is true of any simulation performance.

In 2021, THSSC started taking its own path towards forum theater. We have not settled on a format yet, but one idea is to start the simulation activity with a performance of a scene from a published play or musical that focuses on a problematic interaction between a healthcare provider and their patient. The learners would then break off into groups and discuss what they saw and what they would do differently. We would then repeat the scene and allow the learners to step into the performance whenever they see an opportunity to affect change. This is, of course, not forum theater in its truest sense since the learners did not generate the material, but it is certainly an exciting step in Boal's direction.

To be clear, my suggestion to use forum theater within simulation in healthcare education is not meant to replace all high-fidelity simulation activities. Rather, I believe that this is one of the ways in which simulation participants can enjoy increased agency in the topics covered in simulation. Furthermore, forum theater by its very nature invites participants to model a reality that they wish to see, rather than affirm the status quo through faithful reproduction and representation, thus alleviating the fears articulated by Baudrillard, Bligh, Bleakley, and Magelssen.

Conclusion

Simulation in healthcare education blends reproduction and representation to immerse its participants in experiences that transforms novices into professionals. COVID-19, and the need to convert in-person simulation experiences into an online modality, revealed that simulation does not always need to fully reproduce its settings to achieve its learning goals. Instead, reproduction only needs to support the given circumstances of the scenario and not directly interfere with what the learners must accomplish during the performance. For example, the learners are far less frustrated by a cardboard box with a picture of a flowmeter on it than they are pretending to physically interact with a patient while performing online; the former does not prevent them from checking their patient's supplemental oxygen levels, whereas the latter is a cumbersome impediment to their assessment and a constant reminder that they are engaged in a simulated encounter. In this way, COVID-19 encourages simulation producers to reflect on what exactly is needed for a simulation to take place. British director Peter Brook did this for theater with his book, *The Empty Space*, which famously begins with: "I can take any empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him, and this is all that is needed for an act of theatre to be engaged" (9). Does healthcare simulation only need a space, a learner, and a simulated patient for an act of learning to be engaged? Do we need the latest technologies to produce simulations and to facilitate transferable learning opportunities?

These are valuable questions for simulation producers but, fortunately, they do not have to answer them alone. As we transition into a post-COVID era that is still rife with racial and wealth inequalities – likely made worse by the pandemic – we must reach beyond our own narrow disciplines to develop new ways of thinking and educating thinkers to address the

problems at hand. For example, healthcare educators can connect beyond the health sciences in developing and producing simulation scenarios. Medical anthropology can help identify problematic or outdated modes of discussing health and care that may be inadvertently reified through simulation activities. Philosophy departments could help with matters of ethics, as well as incorporating hermeneutical concepts into simulation's performance processes, as discussed above. Theater departments can do more than supply actors to perform as simulated patients; they can assist with strengthening the storytelling and performance experience of simulation. Performance studies – as I hope this dissertation has demonstrated – can provide a different perspective on simulation's processes, highlighting themes that may go unnoticed or unappreciated by those outside this field. Separately, these different disciplines bring to the table their own bodies of knowledge that supplements those found in healthcare. Together, these different disciplines can help simulation producers further enhance the intentionality of what they represent and reproduce within their centers, leading to stronger outcomes for their learners and for their healthcare community.

Simulation is a powerful modality and those who engage with it assume a significant responsibility not only to their learners but to the community at large. Simulation can shape and reshape reality, a participant's identity, and the way they see themselves within the world. Thankfully, this responsibility can be – and should be – shared amongst a wide array of stakeholders, all working together towards a more equitable and just healthcare system.

APPENDIX. SAMPLE HEALTHCAST SCENARIO GUIDE

The following is the HealthCAST Scenario Guide Template. Lorrie Wong and I worked on standardizing the format for the Scenario Guides in 2019 in preparation for THSSC's upcoming accreditation. The Scenario Guides are typically printed in booklet form, but I have adjusted the formatting for the purposes of including it in this dissertation. This format will likely be obsolete shortly after this dissertation is published as we are working on a complete overhaul of our training materials.

HealthCAST Scenario Guide Template

COURSE: SIMULATION TITLE

	LAST REVIEW (NAME & DATE)
UNIVERSITY OF HAWAI'I Translational Health Science Simulation Center	Alex Munro (Review Date) Lorrie Wong (Review Date)

Conventions of Simulation

You must remain in character from the moment you are told that the cameras are being turned on to the moment you are told that the cameras are being turned off. This allows the healthcare learners to only see you as the character.

Try not to speak when the healthcare learners make a phone call. It makes it difficult for the healthcare learners in the debriefing room to hear the phone conversation. You cannot hear either part of the conversation: the healthcare learners or the "doctor" on the speakerphone. Pretend that they have left the room. However, you can use their conversation to gauge how the simulation is going.

The healthcare learners may wish to confer with each other through a sidebar conversation. If they inform you that they are stepping out of the room, then you cannot hear them (even though they are still in the room). If they just start to confer with each other without saying they are leaving the room, then you can hear them and you are encouraged to request inclusion into their conversation.

If you are the patient, the healthcare learners may take some of your actual vital signs, such as your temperature and your blood pressure. Some vital signs have to be provided by the simulation technicians. Ignore the moments where the learners "talk to the ceiling," i.e., request vital signs from the simulation technicians.

Overall Learning Objectives
(If Needed)

Some simulations have overall learning objectives that inform the scene-specific learning objectives. If provided, they are included here for the actor's benefit.

Character Background Information
(If Needed)

Can include:

- Age,
- Employment,
- Medical History,
- Family History,
- Support Systems,
- Significant Events leading up to the first scene,
- Timeline of Events,
- Socioeconomic Status,
- Religious Beliefs,
- Education,
- Information about previous encounters with learners in other scenarios,
- Other details important in portraying the character.

Who's in the Room?
List of healthcare learners that the actor will work with during the simulation (nursing learners, medical residents, etc.). This is especially important for interprofessional simulations.

Important Note on "Side-Plots"
(If needed)

The following frameworks are written to provide actors with a sense of the narrative for the respective scenes. The actor and/or the learners may bring up the following "side-plots" at any point during the simulation. (Cues leading to discussions on comorbidities)

Scene (One, Two, Etc.)
Learning Objectives for the Healthcare Learners

- Scene specific learning objectives for the healthcare learners. The actors need to know these objectives so that they can appropriately guide the performance on simulation day.

Shift Report to Healthcare Learners

Actors needs to know what the healthcare learners are told about the scenario and their character before entering the simulation theater. This ensures continuity and fidelity.

Wardrobe & Makeup
(If Needed)

Informs the actor on wardrobe and makeup requirements for the character.

Framework

The framework provides a summary of the ideal sequence of events for the simulation performance. Scenario Guides *never* specify dialogue because the interactions between the actors and the healthcare learners are unique for that particular simulation performance. The healthcare learners do not have a script with prescribed dialogue, which means that the simulation performance runs the risk of becoming stilted should the actor have to say prewritten words verbatim.

Rather, the framework provides a broad sketch of the character and the desired results for the simulation performance. The HealthCAST GA and the actor work together to flesh out the character from the information provided by the scenario authors, healthcare faculty, and subject matter experts, as well as from personal experiences, research, and analysis.

Important Details
(If Needed)

- Details that help shape the character and/or the scenario but are not necessary for the framework itself.

Advice to the Actor
(If Needed)

- This section provides advice to the actor gained from past simulation performances.

Appendix
(If Needed)

Additional information that can include:

- Actor's Emotional Trajectory
    - Positive/Negative Triggers
- Notes (empty space for actors to take personal notes during rehearsals

DEBRIEFING

Basic Guidelines

The debriefing session is an opportunity for the healthcare learners and the actor to provide feedback on each other's performances. The facilitator will lead and guide the conversation so that both parties emerge from the discussion with feedback that reinforces positive attributes and highlights areas for improvement.

Please remember the following as you debrief with the healthcare learners:

- Remember that you are not there to lead the conversation or to educate the healthcare learners. You are there to provide your subjective feedback from your experience as the patient's family member from the simulation you just performed in.
- Try to keep answers concise. The facilitator has a limited amount of time to debrief their learners. Please respect their time.
- Share feedback as yourself. Only answer as your character if asked.

The facilitator will ask the following questions:

Actor to Learner Feedback

- What behaviors during this encounter made you feel cared about as a person and as the patient's family member?
- How can the team/student improve? (*i.e., What behaviors during this encounter made you not feel cared about as a person and as the patient's family member?*)

Learner to Actor Feedback

- What emotions did the actor make you feel? What did the actor say or do to evoke this emotion?
- What could be done next time to improve the realism of the character portrayal of the patient's medical condition, personal background, and/or situation?

The following are categories that will guide you on answering the above question and provide you with aspects to look for during the simulation:

Rapport

- Introduced themselves upon entering the room.
- Explained the reason for visit and for any procedures or interventions.
- Asked me for my point of view.
- Assumed that I was intelligent but refrained from using advanced medical terminology.
- Kind, friendly, and respectful towards me.

Empathy

- Expressed concern for my son's condition and situation.
- Tried to understand how my son's symptoms affected my life or vice versa rather than focusing solely on my son's symptoms.
- Warm and caring instead of aloof, detached, and/or overly business-like.
- Positive reinforcement for what I'm doing well rather than accusing me of non-compliance (not taking better care of my son, etc.).

Communication

- Non-verbal:
    - Professional posture and carriage
    - Actively listened
    - Maintained appropriate level of personal distance
    - Appropriate body language
- Included me in conversations (did not "sidebar" or talk over me).
- The dynamic and energy of the group in the room: Did you communicate with each other?
- Displayed confidence in the material and in their intervention.

Don't Forget!

- THSSC has a strict dress code: You must wear closed toed shoes and long pants (or a dress) in order to enter the simulation center. Think "business casual."
- Food and drink are only allowed in the break room. DO NOT bring food or drink into the control room or the simulation rooms. You are welcome to store your food and drinks in the refrigerator in the break room.

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